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U. S. ARMY
TRANSPORTATION RESEARCH COMMAND
FORT EUSTIS, VIRGINIA



SUPPLEMENT
to
TRECOM TECHNICAL REPORT 63-81

CRASH INJURY EVALUATION
PERSONNEL RESTRAINT SYSTEMS STUDY
UH-1A AND UH-1B BELL IROQUOIS HELICOPTERS

Contract DA 44-177-AMC-888(T)

March 1964

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64 go

prepared by:

AVIATION SAFETY ENGINEERING AND RESEARCH
Phoenix, Arizona

A Division Of
Flight Safety Foundation, Inc.
New York, New York



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* * *

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Task 1A024701A12101
Contract DA 44-177-AMC-888(T)
TRECOM Technical Report 63-81
March 1964

SUPPLEMENT
to
PERSONNEL RESTRAINT SYSTEMS STUDY
UH-1A AND UH-1B BELL IROQUOIS HELICOPTERS

Crash Injury Evaluation
AvSER 62-27

Prepared by
Aviation Safety Engineering and Research
2871 Sky Harbor Blvd.
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A Division of
Flight Safety Foundation, Inc.

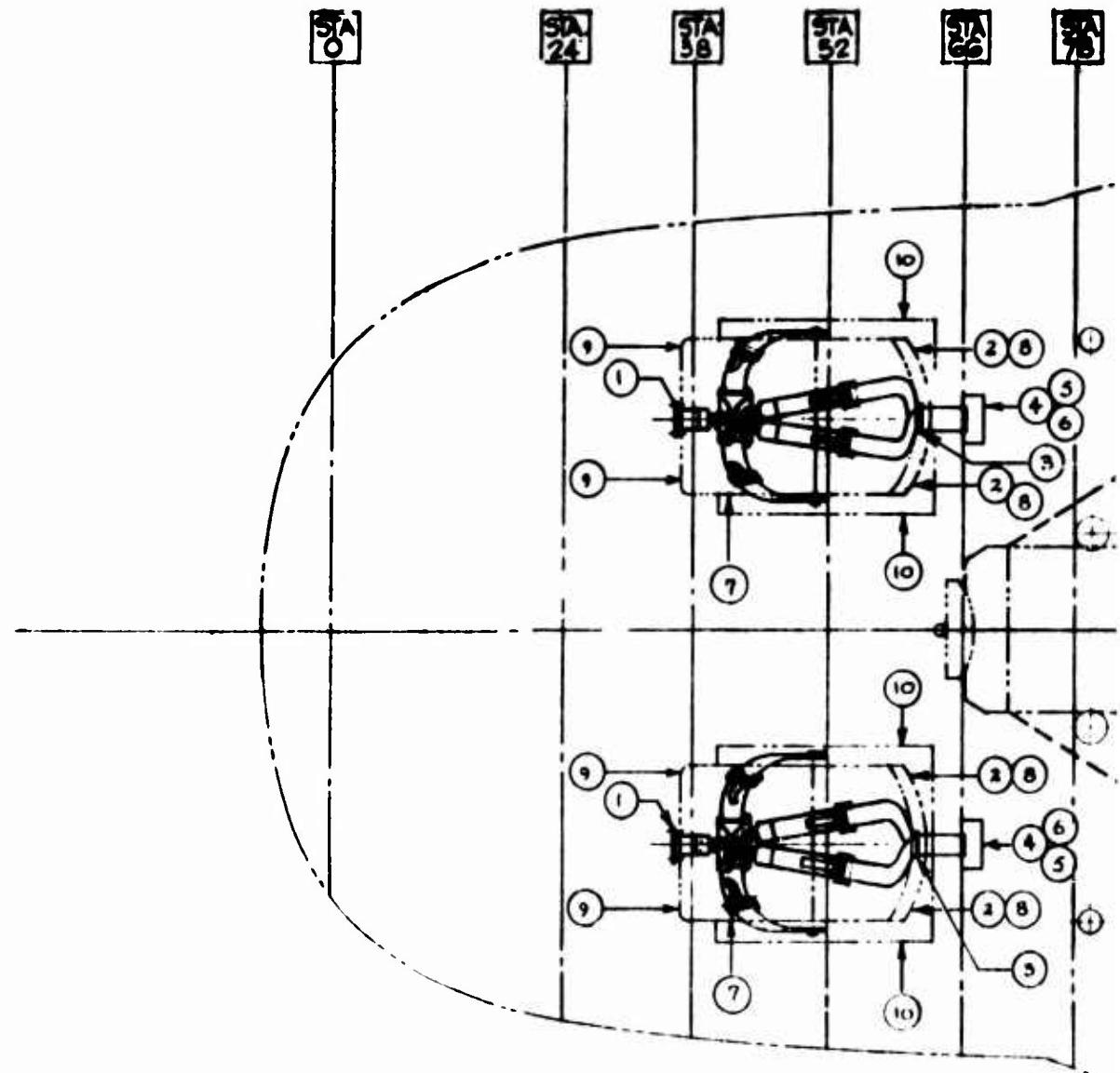
for
U. S. ARMY TRANSPORTATION RESEARCH COMMAND
FORT EUSTIS, VIRGINIA

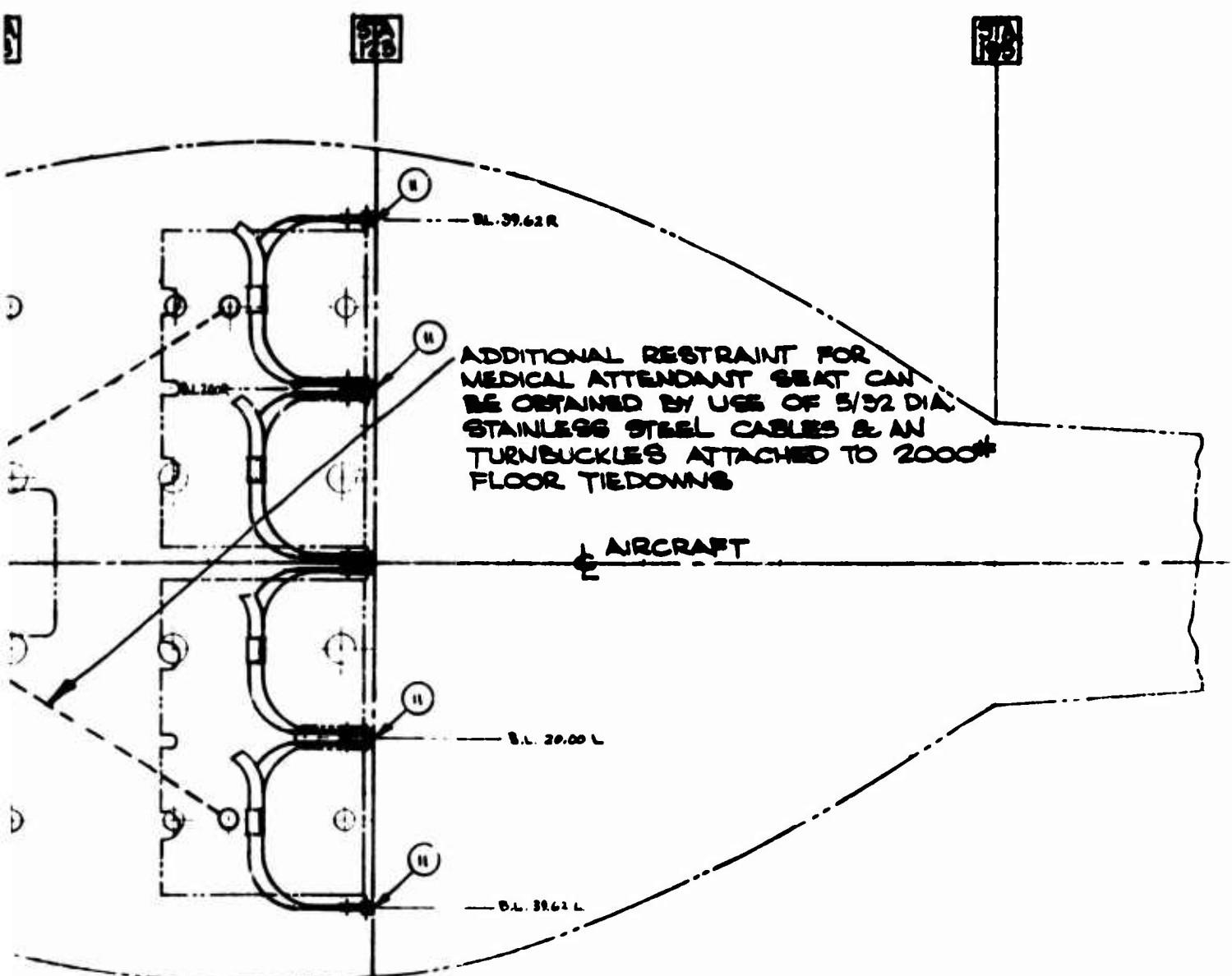
CONTENTS

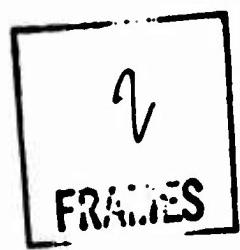
	<u>Page</u>
HU-1A-10 Installation of Personnel Restraint System	1
HU-1A-11 Installation of Lap Belt Tie-Down Strap (Pilot's and Copilot's Seat)	2
HU-1A-12a Modification of Aft Carriage Attachment (Crew Seat)	3
HU-1A-13 Guide Rod Assembly (Seat Back and Pilot's Shoulder Harness)	4
HU-1A-14 Doubler--Inertia Reel Installation	5
HU-1A-15 Dust Cover--Inertia Reel Strap	6
HU-1A-16 Installation of Inertia Reel and Access Through Lower Panel	7
HU-1A-16 Floor Modification (Left-Hand Side)	8
HU-1A-16 Floor Modification (Right-Hand Side)	9
HU-1A-17 Control Cable Installation and Bolt Replacement (Crew Seat)	10
HU-1A-18 Detail and Installation of Reinforcement Tube (Seat Rail (Front))	11
HU-1A-19 Detail and Installation of Reinforcement Tube (Seat Rail (Back))	12
HU-1A-20 Reinforcement and Replacement of Rear Tracks	13, 14, 15
HU-1A-30 Modification of Troop Lap Belt Attachment Fittings	16
HU-1B-50 Installation of Personnel Restraint System	17
AVCIR-10 Lap Belt Tie-Down Strap	18
AVCIR-15 Pilot's Tie-Down Strap	19

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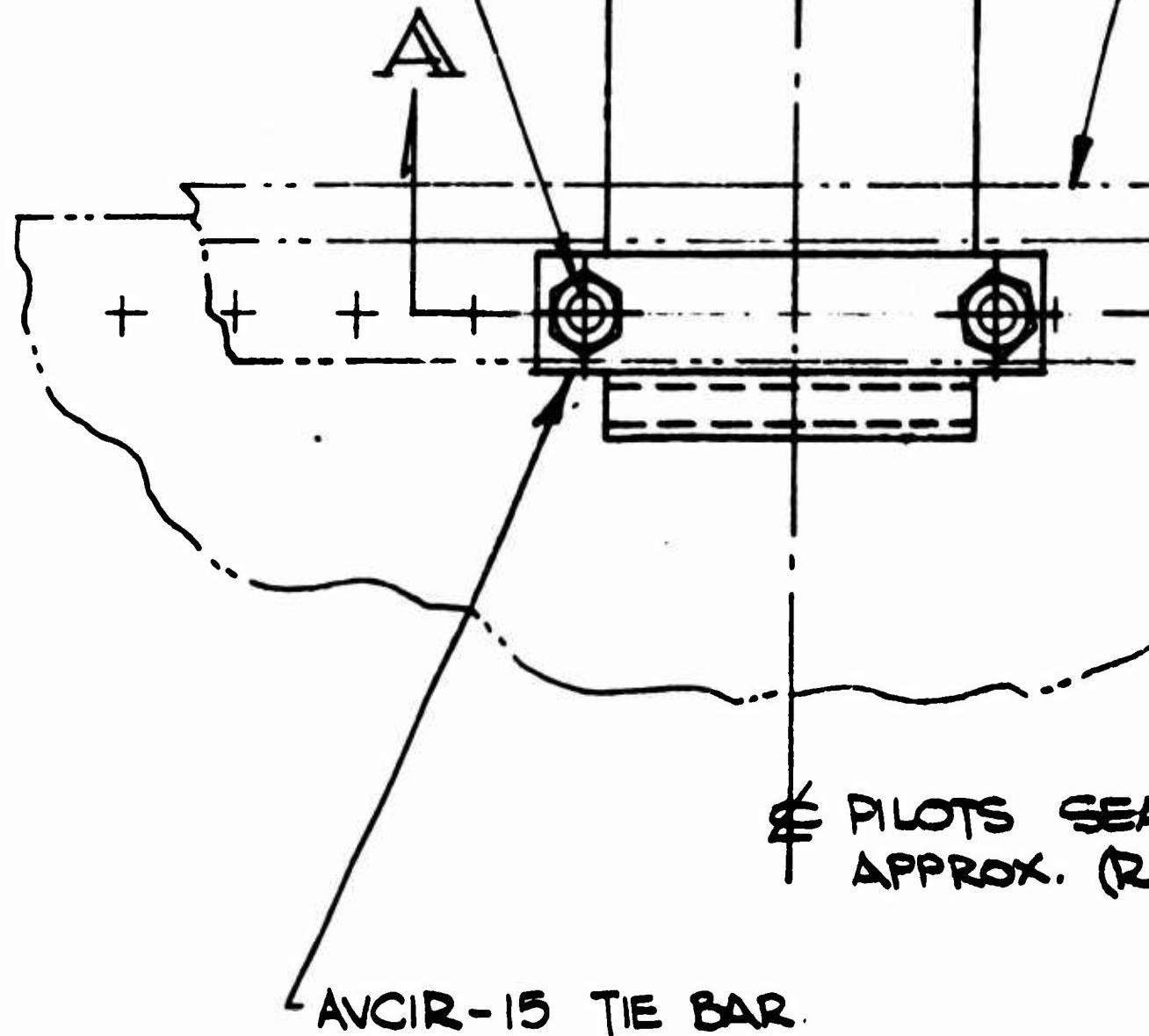
1
FRAMES





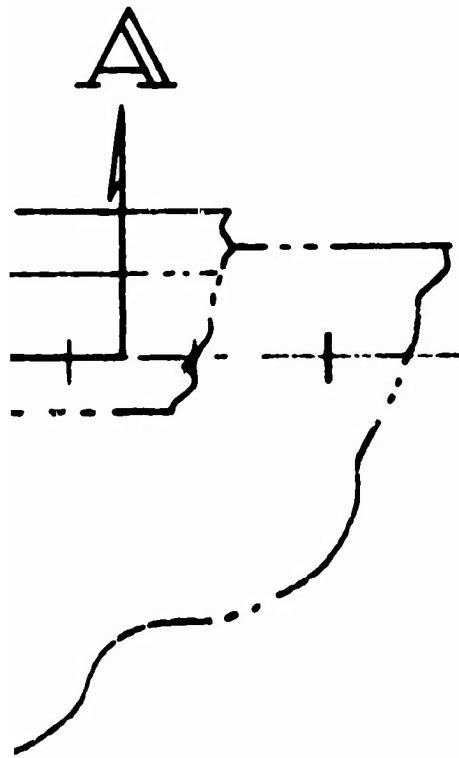


.346 DRILL THRU
EXISTING RIVET HOLES



CIR-10

FRAME & BUCKET
PILOT & CO-PILOT SEAT
204-070-706 (REF.)

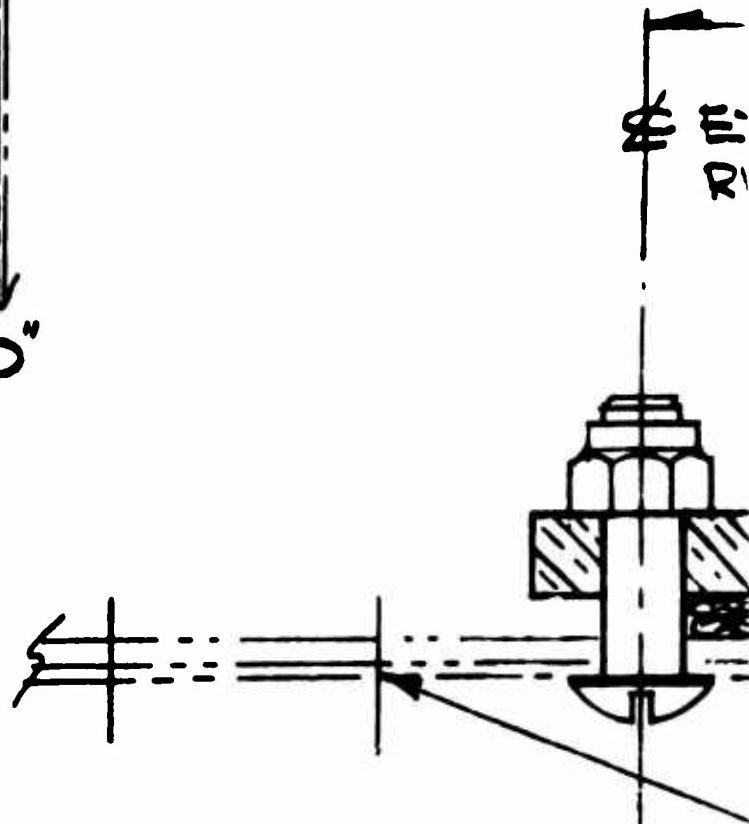


SEAT
(REF.)

INSTALLED
THIS SIDE UP

CHAMFER IF NECESSARY IF

BOLT BE EXISTING



SECTION A
DOUBLE SIZE

INSTALLED
THIS SIDE UP

CROTCH STRAP (REF.)

CHAMFER IF NECESSARY FOR CLEARANCE, ONE SIDE ONLY

BOLT & EXISTING RIVETS

1.94

(REF.)

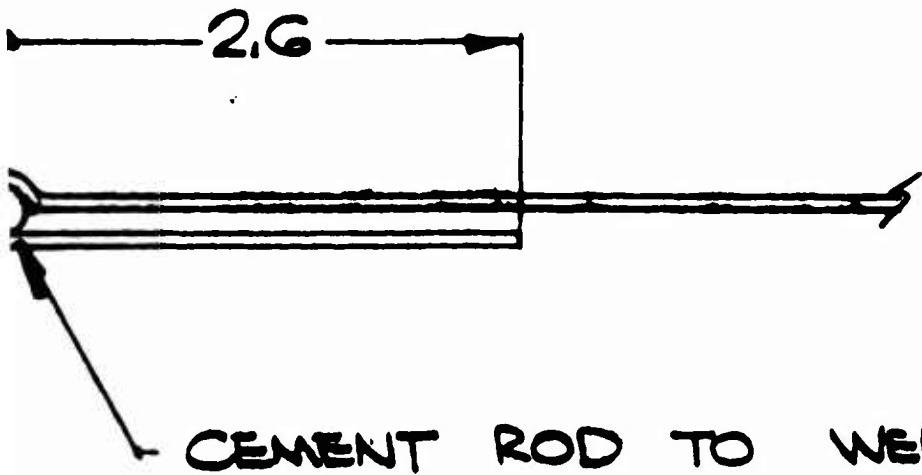
EXISTING
RIVET HOLE

B"

CROTCH
STRAP
(REF.)

SIZE

EXISTING RIVETS
FRAME & BUCKET

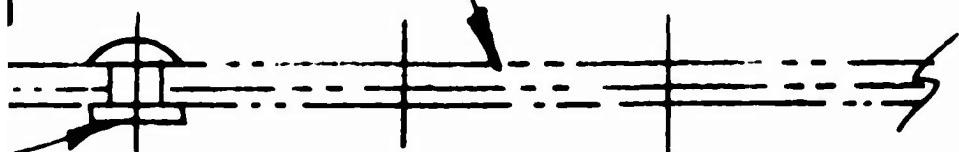


CEMENT ROD TO WEBBING IN SEVERAL SPOTS
BEFORE CLAMPING

DETAIL B

AN 23-9A CLEVIS BOLT
AN 365 - 1032 NUT
2 REQ EA.

FRAME & BUCKET (REF.)



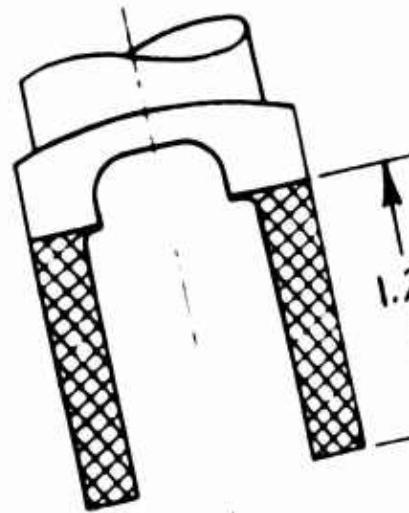
B

IN
IT ASSEM (REF.)

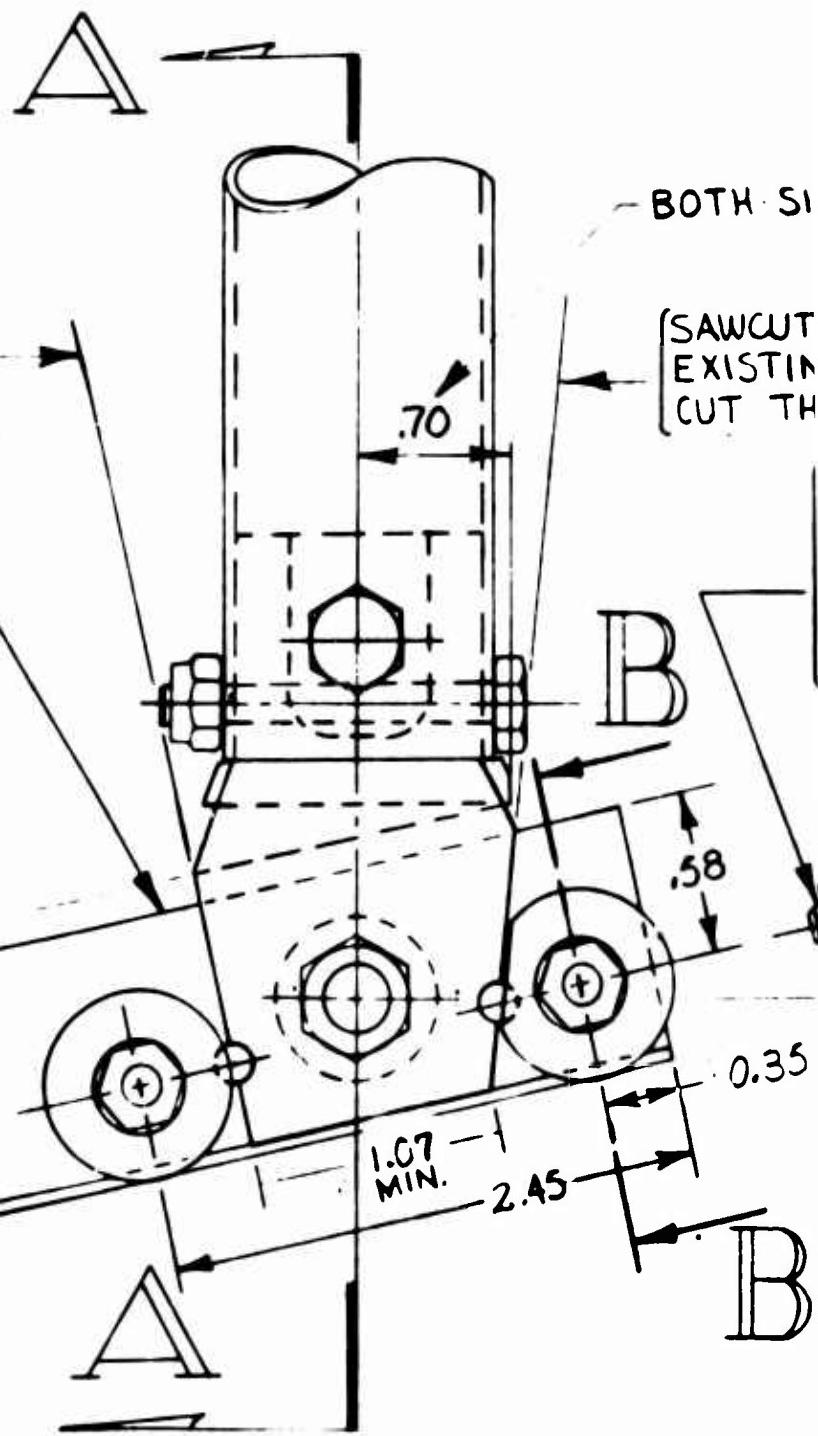
2
T...ES

SAWCUT THRU CENTER OF
EXISTING BOLT HOLE,
PERPENDICULAR TO BOTTOM
OF -742 FITTING
CUT THRU -742 FITTING ONLY

204-070-713-13
CARRIAGE ASSEMBLY (REF)



TYPICAL SECTION
AT SAWCUT



8. REASSEMBLE SIMILAR TO EXISTING ARRANGEMENT
7. INSTALL NEW AN3 BOLTS AND WASHERS. GRIND AN970-3 U
6. DRILL THRU CARRIAGE CHANNEL .191 DIA. AS SHOWN, 2 PL
5. DRILL OUT EXISTING ROLLER TO .468 DIA.
4. DRILL NEW .191 DIA. HOLE THRU TUBE AND FITTING AS SHO
3. SAWCUT FITTING AS SHOWN
2. REPLACE EXISTING SPACER WITH NAS43-5-53 SPACER
1. REMOVE FITTING, 1.25" STEEL TUBE AND CARRIAGE

A

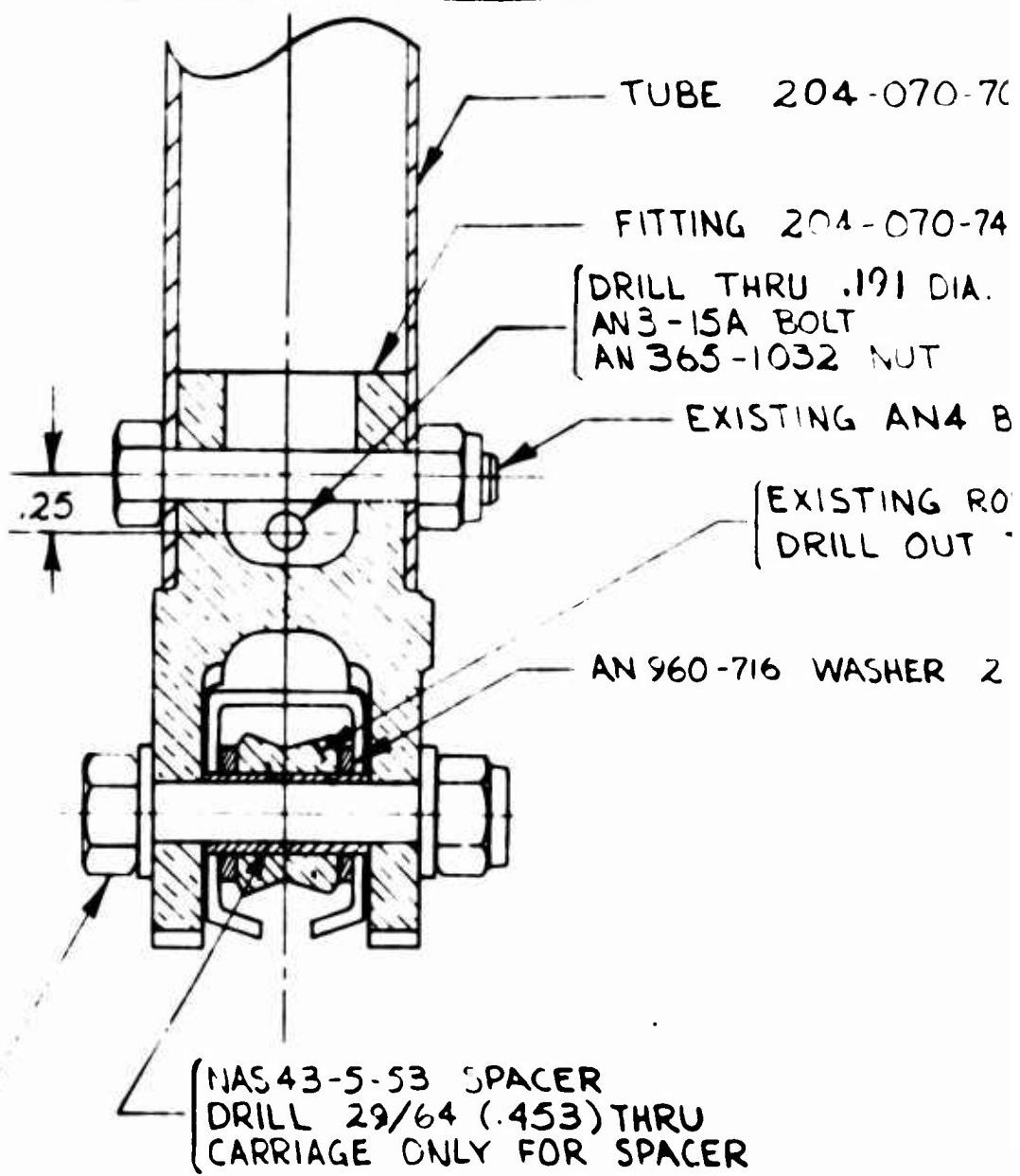
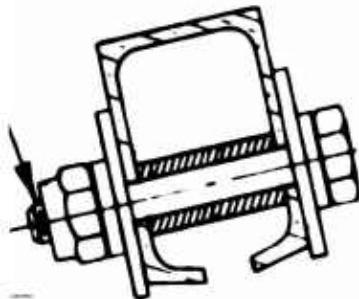
MODIFICATION PROCEDURE:

SECTION A-A

SIDES

IT THRU CENTER OF
ING BOLT HOLE
THRU -742 FITTING ONLY

(DRILL THRU .191 (NO. 11 DRILL)
AN3-13 BOLT 1 REQ
AN970-3 WASHER 2 REQ
AN 960PD10 WASHER 2 REQ
NAS 43-3-42 SPACER (EXISTING)
AN365-1032 NUT 1 REQ



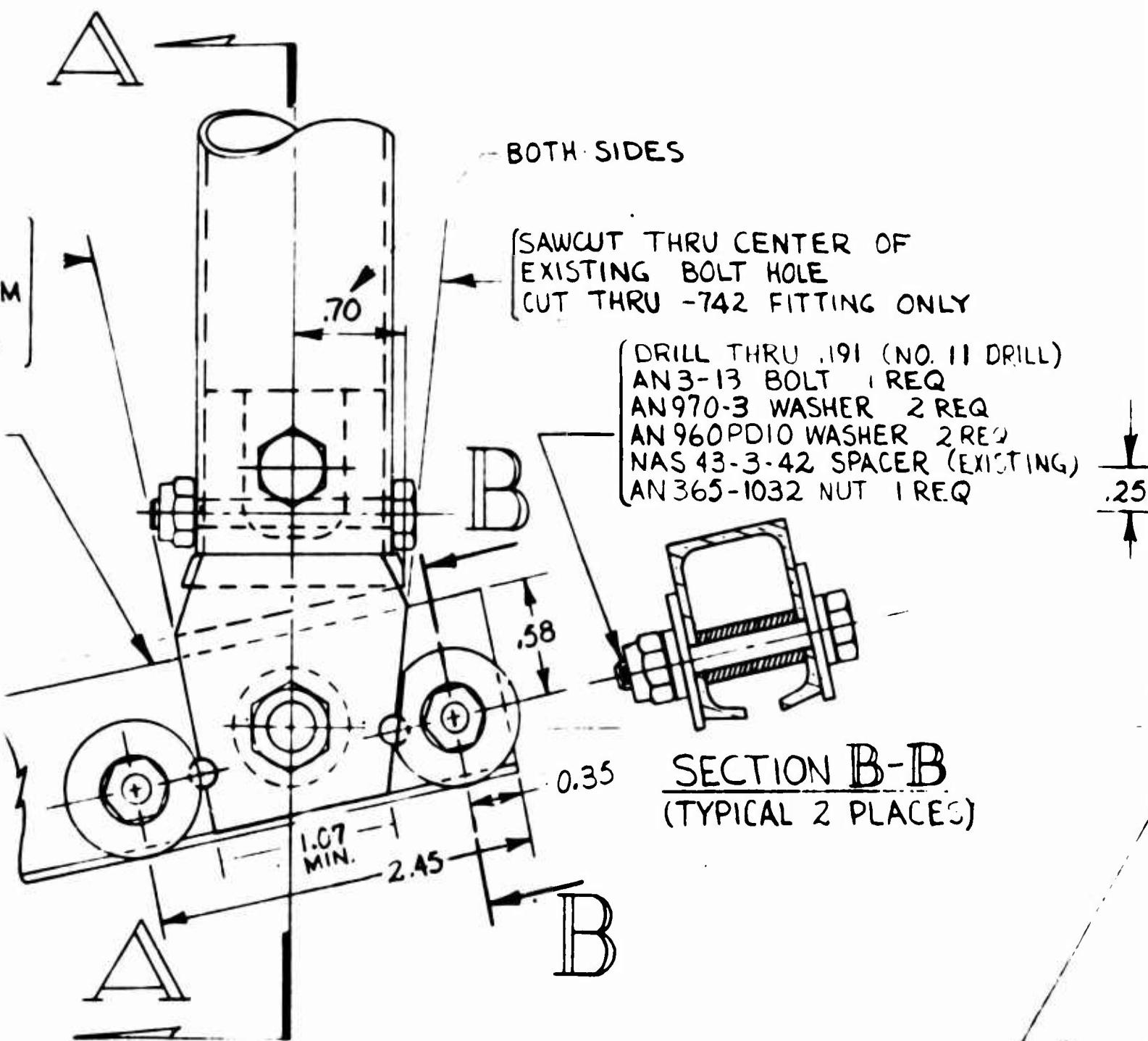
5 SECTION B-B
(TYPICAL 2 PLACES)

LINE DRILL THRU AND REPLACE
EXISTING BOLT WITH
AN5-16A BOLT 1 REQ
AN365-5 NUT 1 REQ
AN960 PD516L WASHER 2 REQ

WASHERS AS NECESSARY TO CLEAR -742 FITTINGS
LACES

OWN AND INSTALL AN3-15A BOLT

CHANNEL FROM SEAT



R TO EXISTING ARRANGEMENT

BOLTS AND WASHERS. GRIND AN970-3 WASHERS AS NECESSARY TO CLEAR
CHANNEL 0.191 DIA. AS SHOWN, 2 PLACES

ROLLER TO .468 DIA.

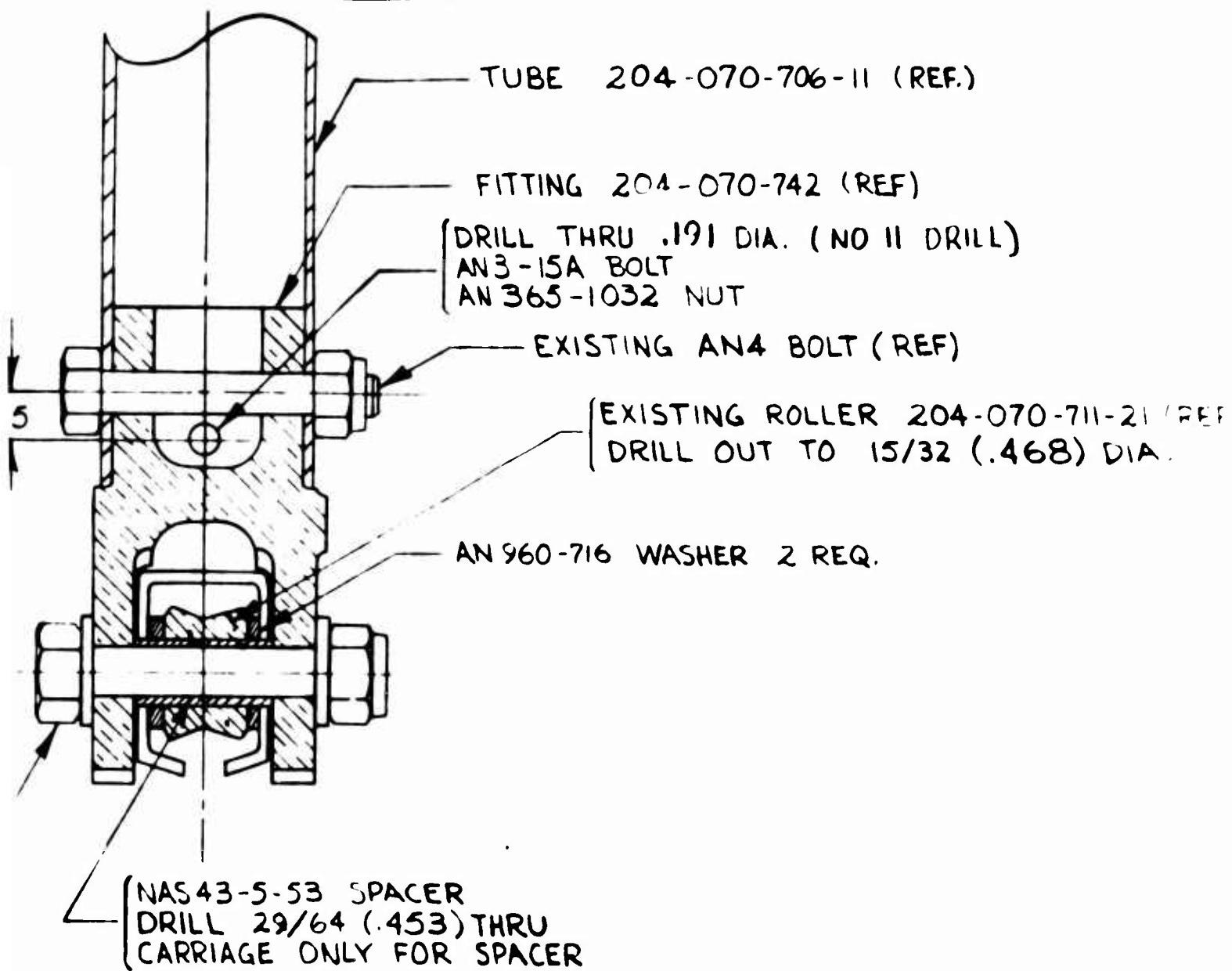
HOLE THRU TUBE AND FITTING AS SHOWN AND INSTALL AN3-15A BOLT
S SHOWN

SPACER WITH NAS 43-5-53 SPACER

1.25" STEEL TUBE AND CARRIAGE CHANNEL FROM SEAT

PROCEDURE:

SECTION A-A



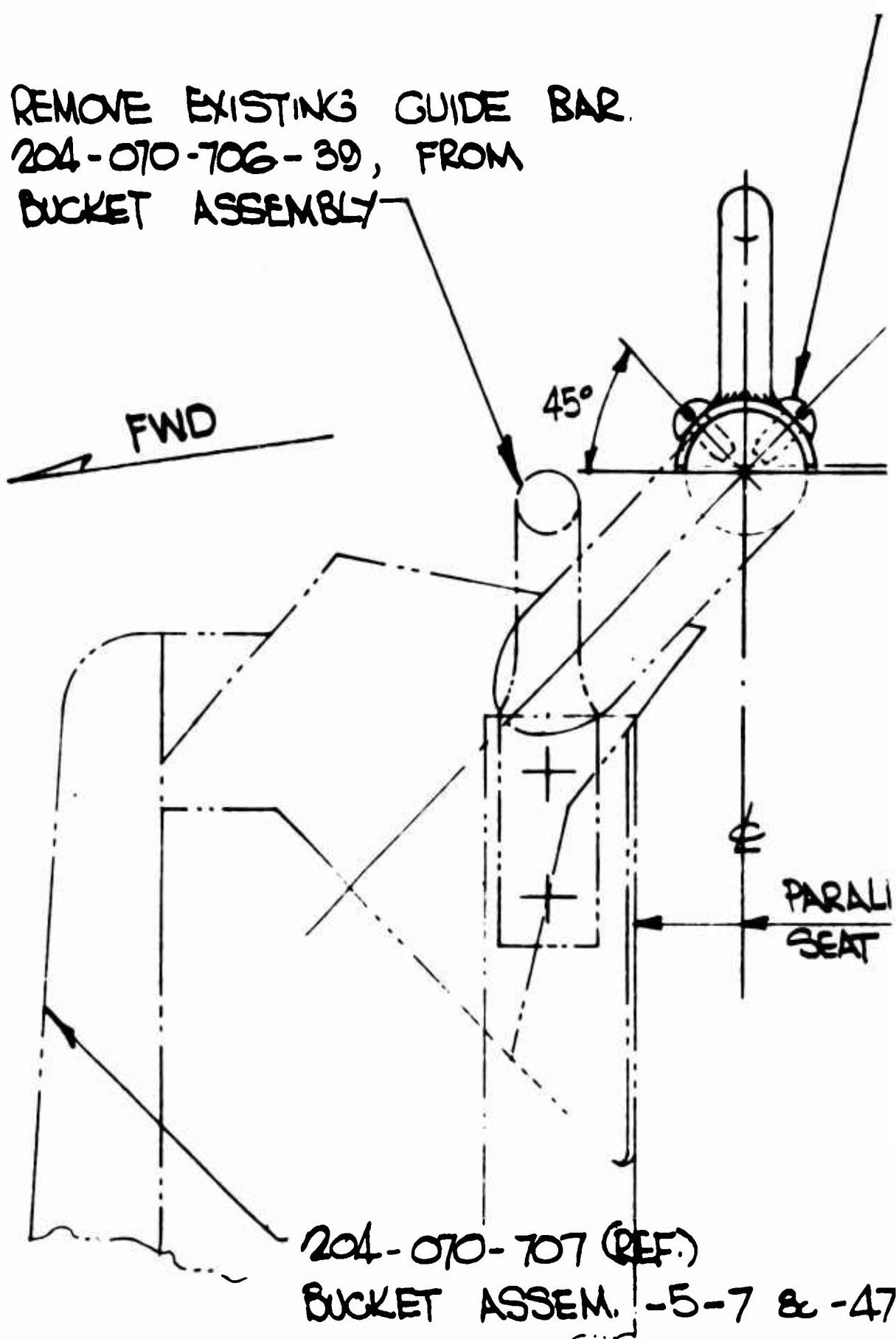
DRILL THRU AND REPLACE
STING BOLT WITH
-16A BOLT 1 REQ
65-5 NUT 1 REQ
60 PD516L WASHER 2 REQ

2 -742 FITTINGS

B

2
FRAMES

REMOVE EXISTING GUIDE BAR.
204-070-706-39, FROM
BUCKET ASSEMBLY

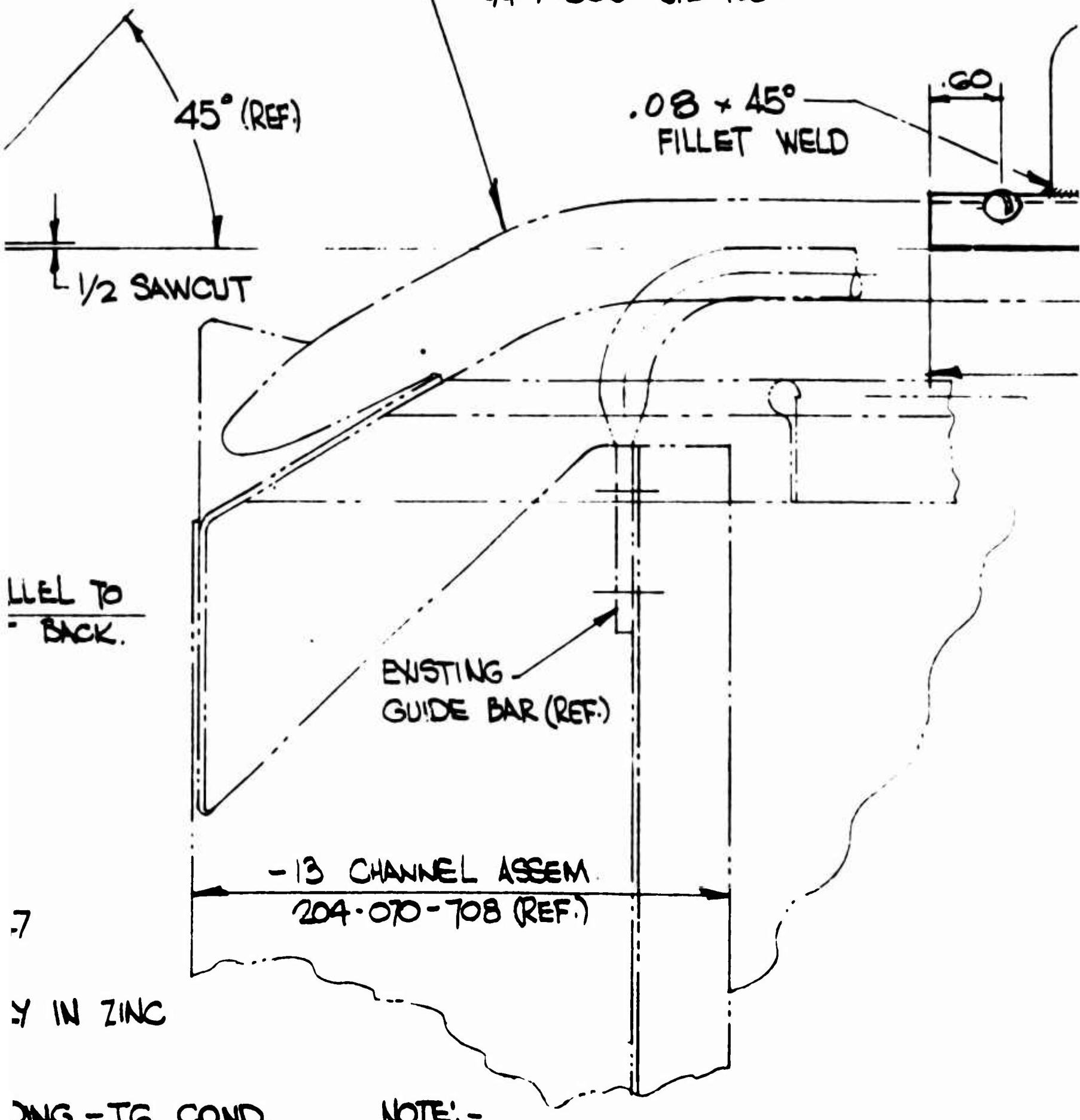


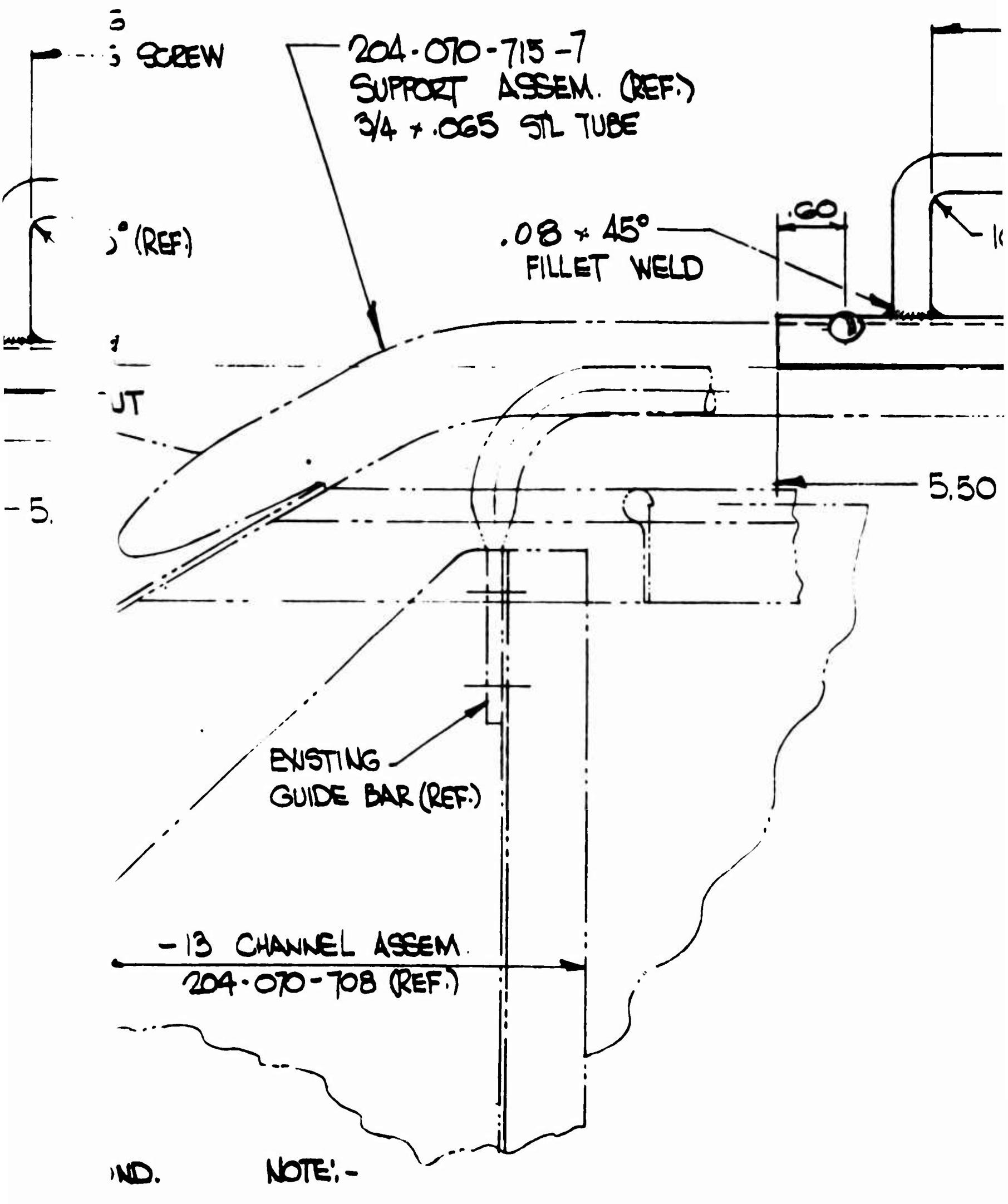
A

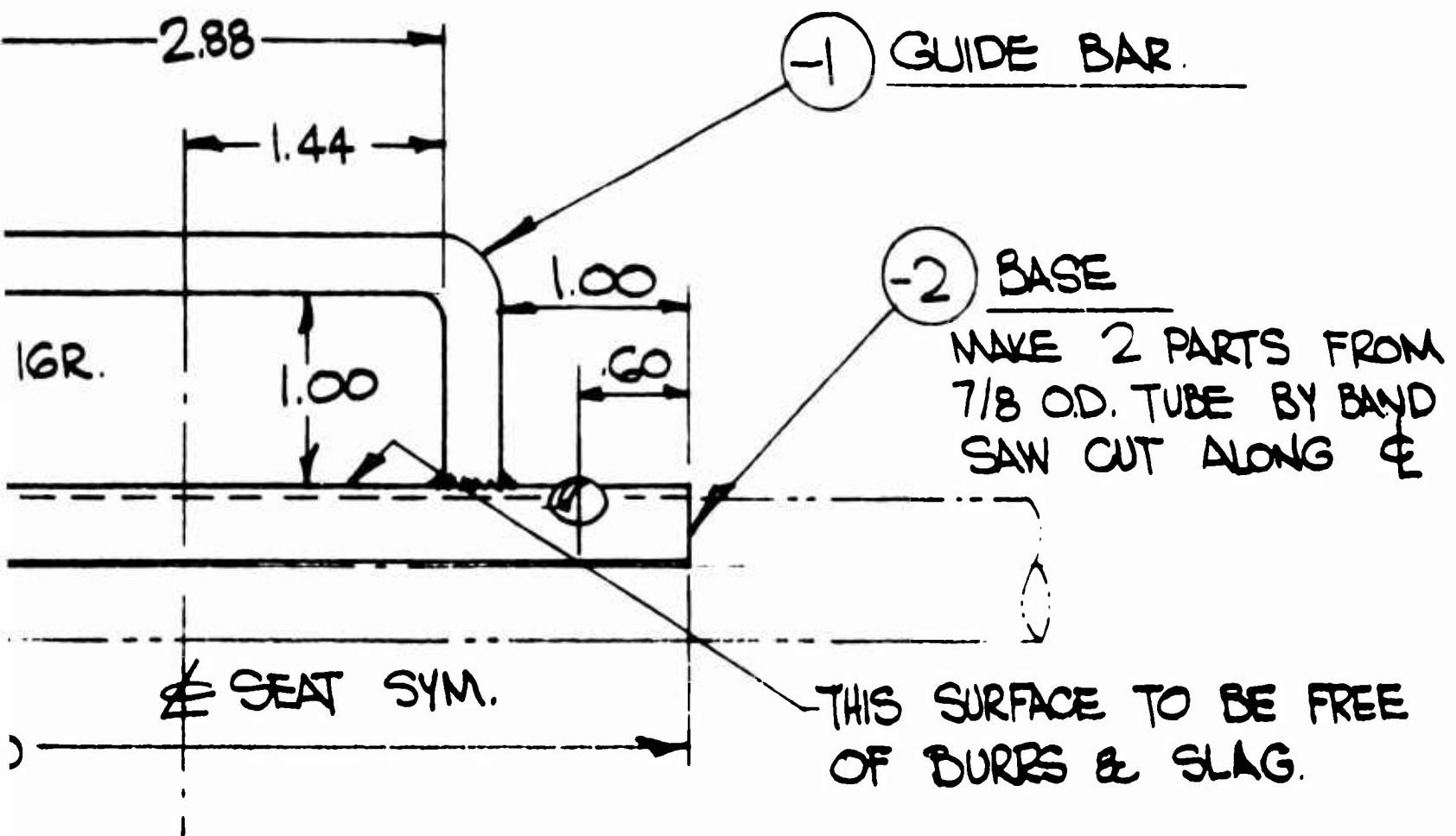
2. AFTER HEAT TREAT, DIP ENTIRE ASSEMBLY
CHROMATE PRIMER - SPEC. MIL-P-6889
1. HEAT TREAT ENTIRE ASSEMBLY AFTER WELDING

AN530C8-6
SELF TAPPING SCREW
4 PLACES

204-070-715-7
SUPPORT ASSEM. (REF.)
3/4 + .065 STL TUBE

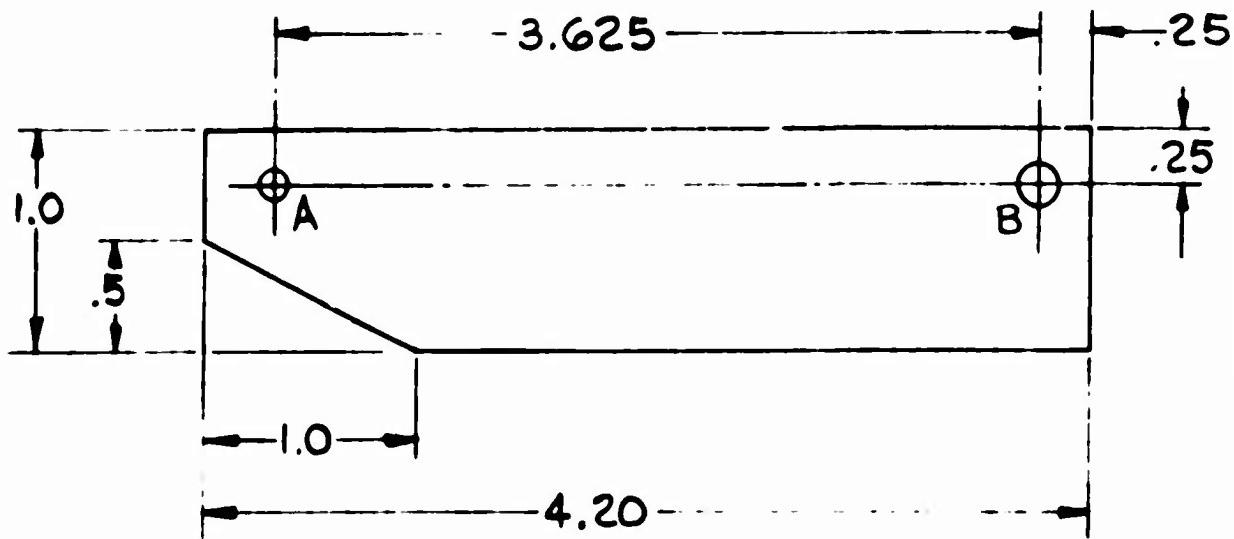






B

2
FRAMES



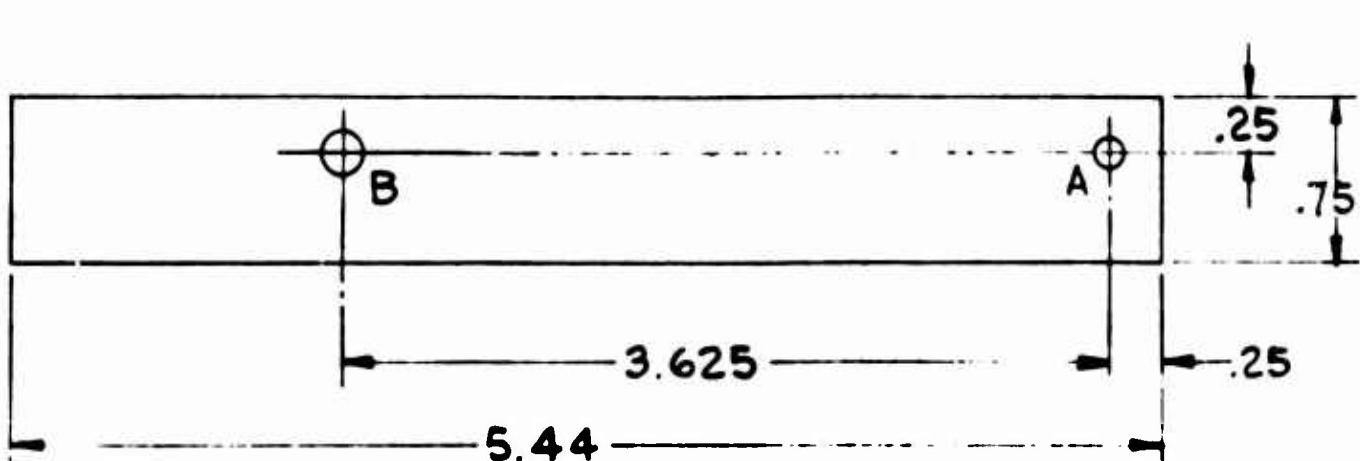
DETAIL -1
DOUBLER (.050 THICK SHEET)

HOLE	SIZE
A	1/8 DRILL (.125 DIA) THRU
B	#11 DRILL (.193 DIA) THRU

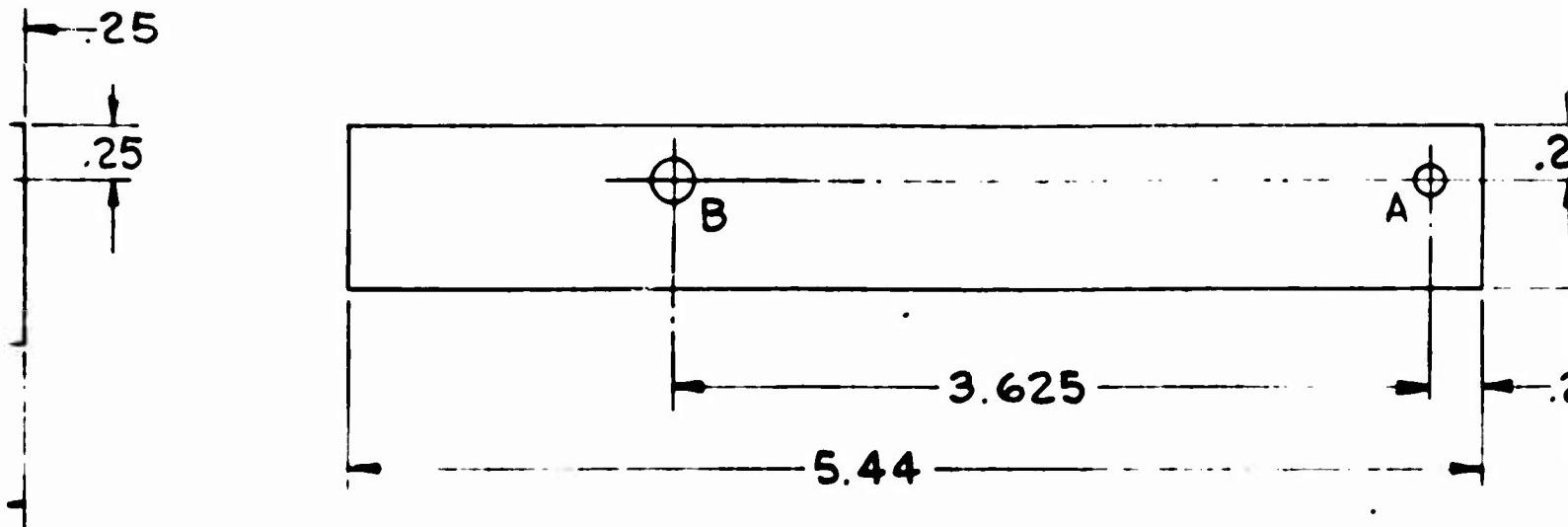
A

5

.10

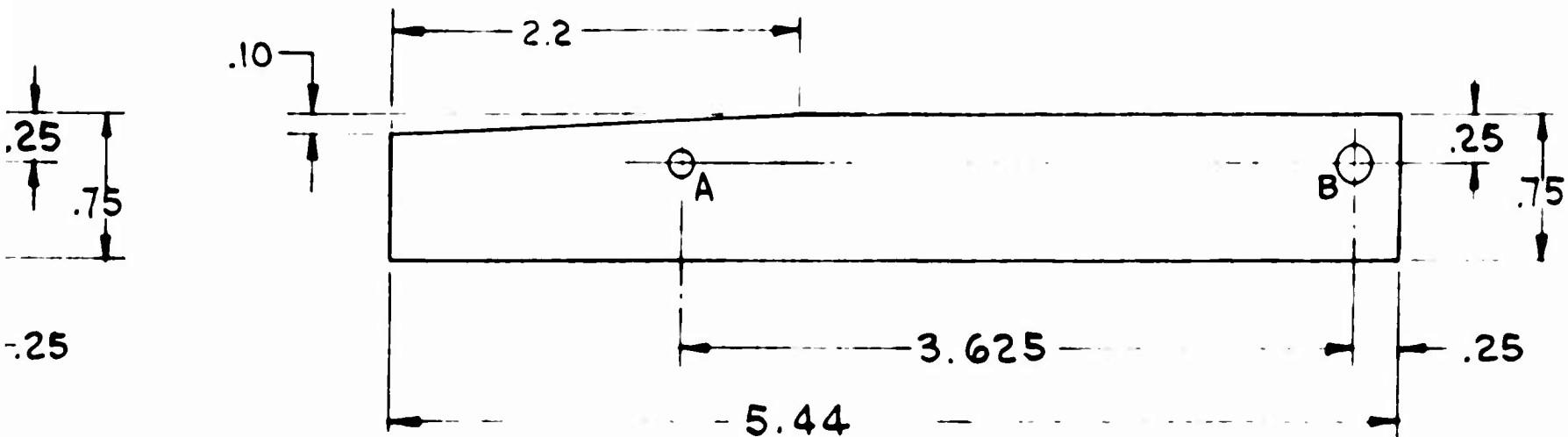


DETAIL - 2
DOUBLER (.063 THICK SHEET)



SHEET)

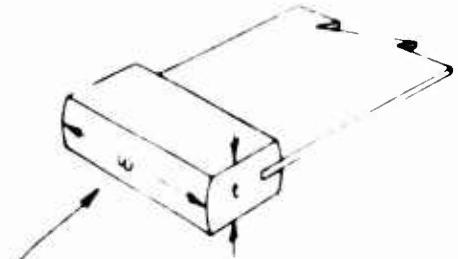
DETAIL - 2
DOUBLER (.063 THICK SHEET)



DETAIL - 3
DOUBLER (.063 THICK SHEET)

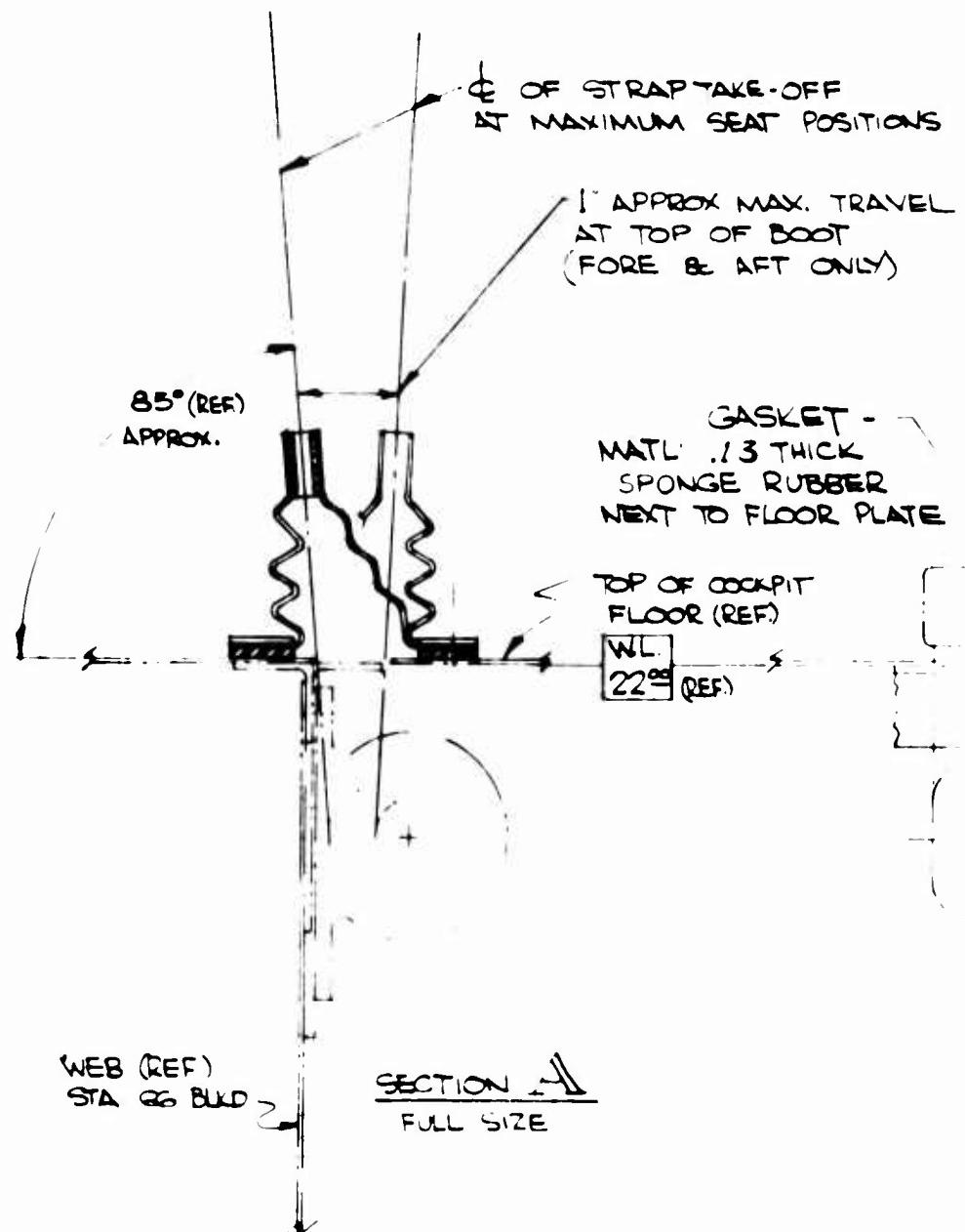
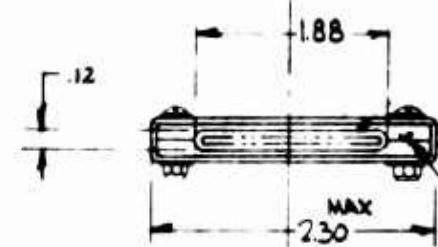
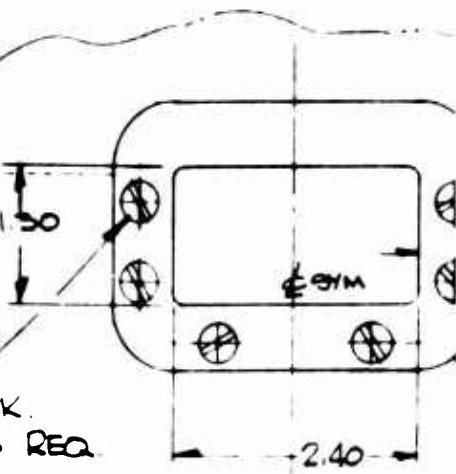
B

FRAMES



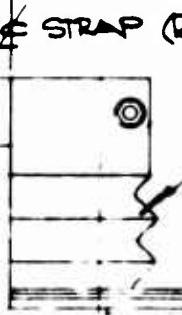
NOTE: -1 GUIDE MUST PERMIT ASSEMBLY USING
SHOULDER HARNESS STRAP WITH END FITTING
AS SHOWN ($t = .25$ in; $w = 1.75$ in)

*B-32 DIA. SCREWS
SELF-TAPPING - P K.
OR EQUIVALENT 6 REQ.



VIEW LOOKING FOR
- & R HAND SIDE

STRAP (REF)



A-A

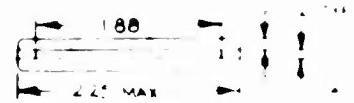
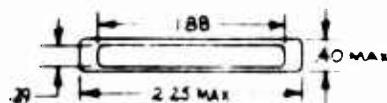
ACCESS DOOR ON COCKPIT
FLOOR 204-031-327 (REF)
(L.H. SIDE ONLY)



BASE PLATE
MATERIAL: .06 AL AL
7075-T6 BONDED TO BOOT

HOLE MUST BE FREE OF ROUGH EDGES
TO PERMIT EASY MOVEMENT OF
NYLON OR DACRON WEBBING WITHOUT FRAYING

.50 MAX



GUIDE - BONDED TO BOOT
MAY BE MADE OF ALUM.
ALLOY, PLASTIC OR PHENOLIC
FIBRE MATERIAL

-1 GUIDE - ALTERNATE NO. 1 -
SINGLE PIECE

-1 GUIDE - ALTERNATE NO. 2 -
SHEET STOCK

(REF.)

BOOT - MATERIAL: $\frac{1}{32}$ THICK APPROX
MOULDED NEOPRENE RUBBER OR FABRIC
BONDED WITH BASE PLATE
AND GUIDE

BASE PLATE



TYPE MA-G INERTIA REEL
INSTALLED BENEATH FLOOR
L & R HAND SIDE AFT SIDE
OF STA GG BLKD

FORWARD 1/4 SECTION
DE @ BL 22 APPROX

SEAT ASSEMBLY
PILOT & CO-PILOT
204-070-700 (REF)

HAR
PACIFIC SCIENTIFIC

ACCESS DOOR -
IN COCKPIT FLOOR (REF)
L.H. SIDE ONLY

FUSELAGE SHELL
FWD SECTION (REF)

CONTROL INSTALLATION
TO PILOT SEAT H J-1-17

HU-1-1G
FLOOR MODIFICATION
& INERTIA REEL INSTALL
SHEET #2 L.H. SIDE (REF)
SHEET #3 R.H. SIDE (REF)

TOP OF COCKPIT FLOOR
W.L. 22 APPROX. (REF.)

FUSELAGE CONTOUR
AT STA 78 BLKD (REF.)

FORWARD

BL 30 (REF)

BL 22
L.H.
SIDE

BL 20
R.H.
SIDE

OUTBOARD

ISOMETRIC VIEW LOOKING DOWN

L.H. SIDE OF AIRCRAFT
SCALE: 1/4 APPROX

A

HARNESS - AIRCRAFT SAFETY SHOULDER, ADJUSTABLE
TIFIC CO. - PART NO. O161533-78 IN LENGTH

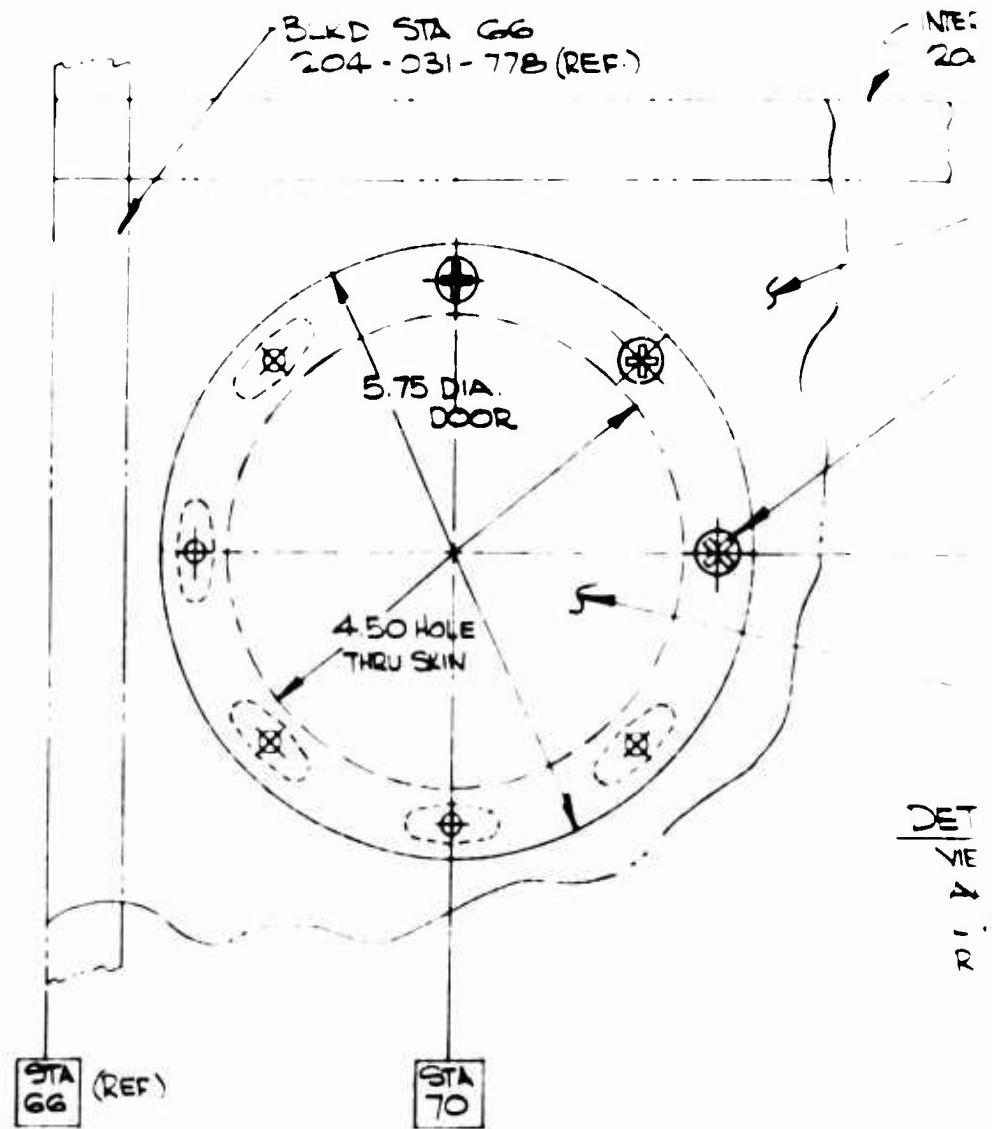
BLKD STA 66
204-031-778 (REF.)

INTC
20

DUST COVER - HU-1-15



AFT SIDE - STA 66 BLKD (REF.)



NEW ACCESS DOOR THRU
LOWER SKIN PANEL
SEE DETAIL A

(REF.)
OUTER SKIN GAGE .040
LOWER PANEL
204-021-007 (REF.)

1.
2.H.
IDE

DN

▲ THIS PART REPLACES SHOULDER HARNESS PART NO AF 50D3770 (TYPE G) AND INERTIA REEL STRAP PART NO O161538 (FAC SCIENT CO.) THIS CHANGE RESULTS IN . C LB WT DECREASE FOR EACH SEAT

HARNESS - AIRCRAFT SAFETY SHOULDER, ADJUSTABLE
PACIFIC SCIENTIFIC CO. PART NO. 0101533-78 IN LENGTH

DUST COVER - HU-1-15

STA
66 (REF.)

AFT SIDE - STA 66 BLKD (REF.)

STA
78 (REF.)

STA
66 (R)

NEW ACCESS DOOR THRU
LOWER SKIN PANEL
SEE DETAIL A

OUTER SKIN GAGE .040
LOWER PANEL
204-031-007 (REF.)

FORWARD

BL
30 (REF.)

BL
22 (REF.)
L.H.
SIDE

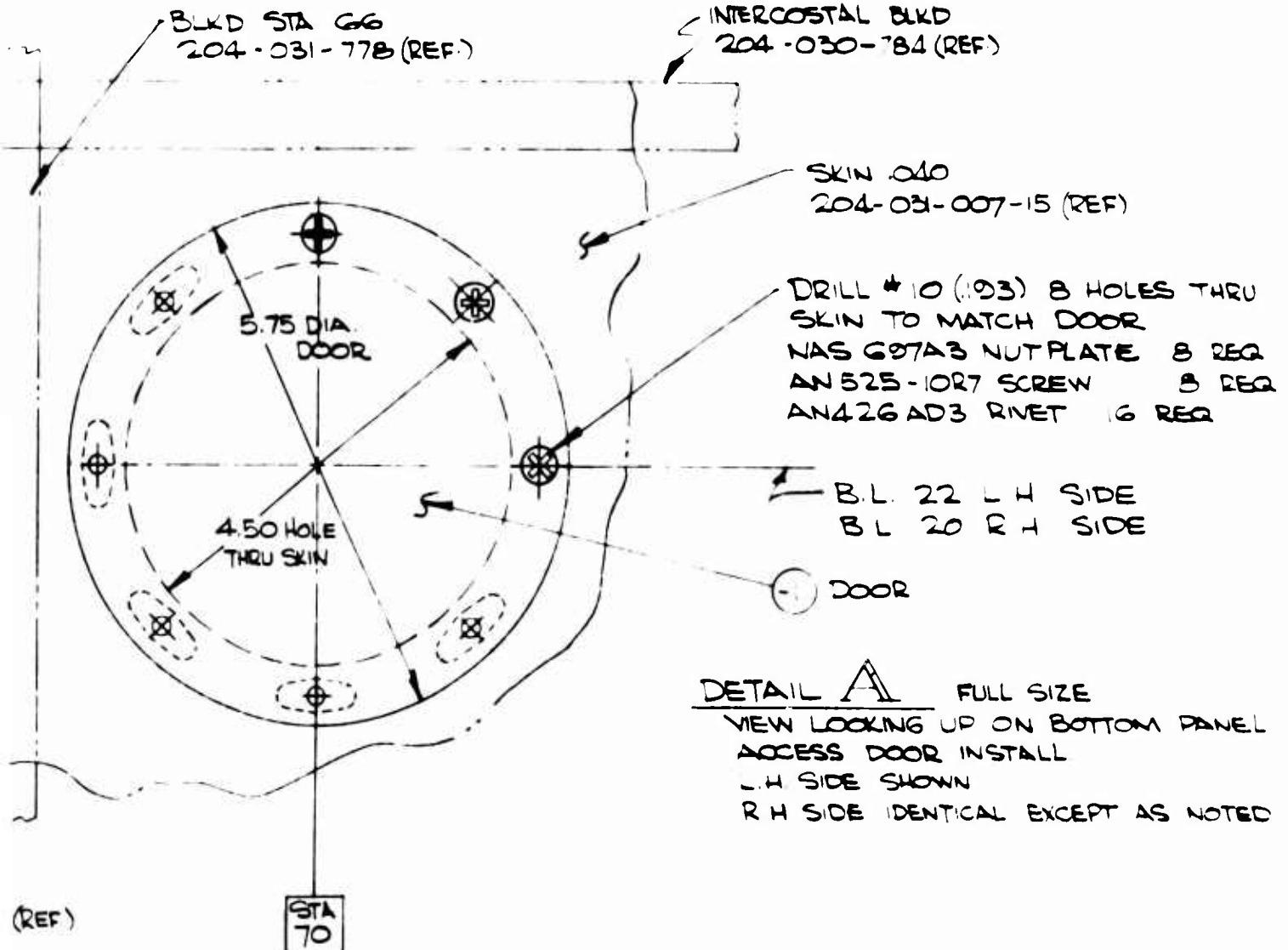
BL
20 (REF.)
R.H.
SIDE

OUTBOARD

ISOMETRIC VIEW LOOKING DOWN

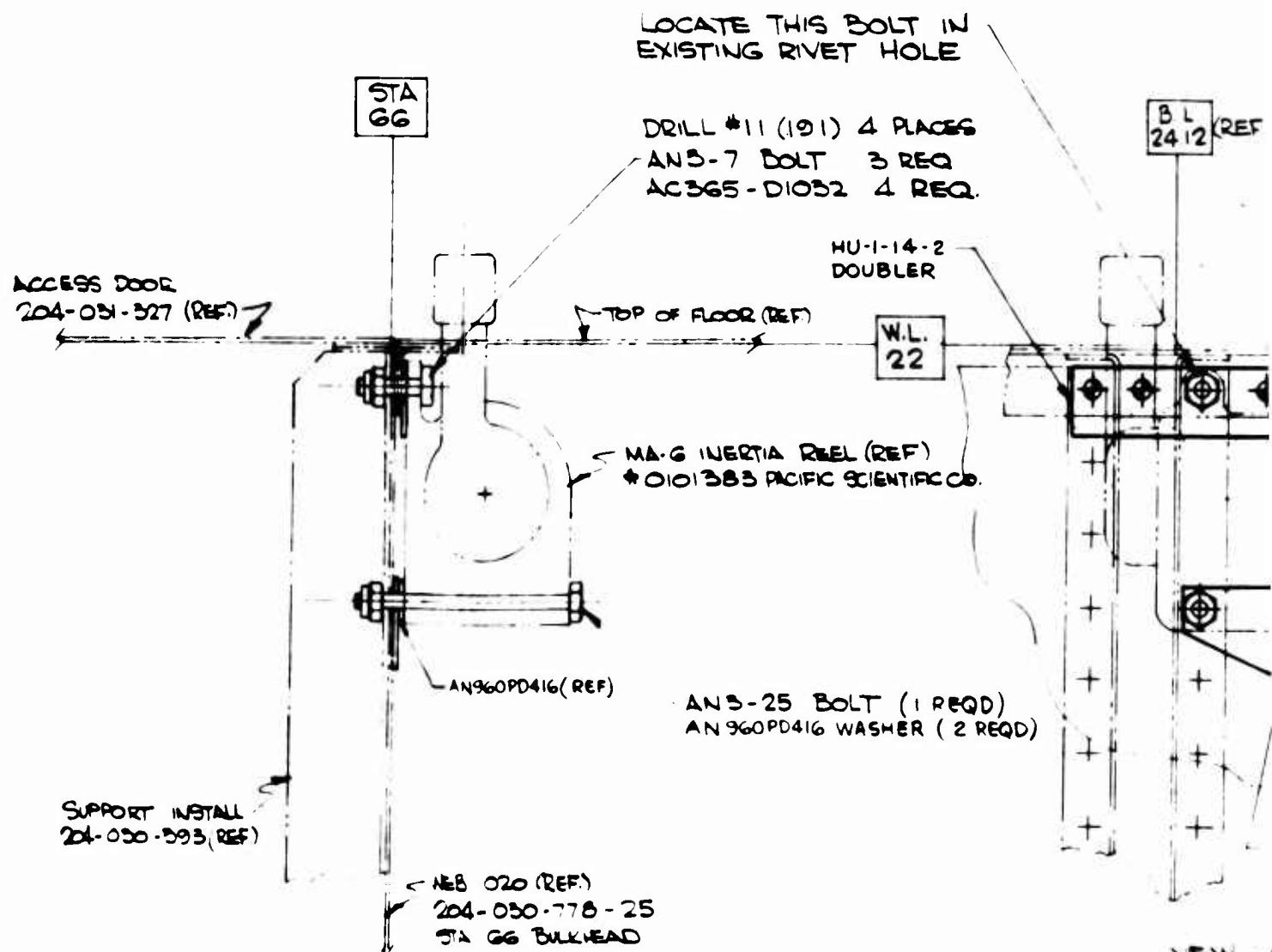
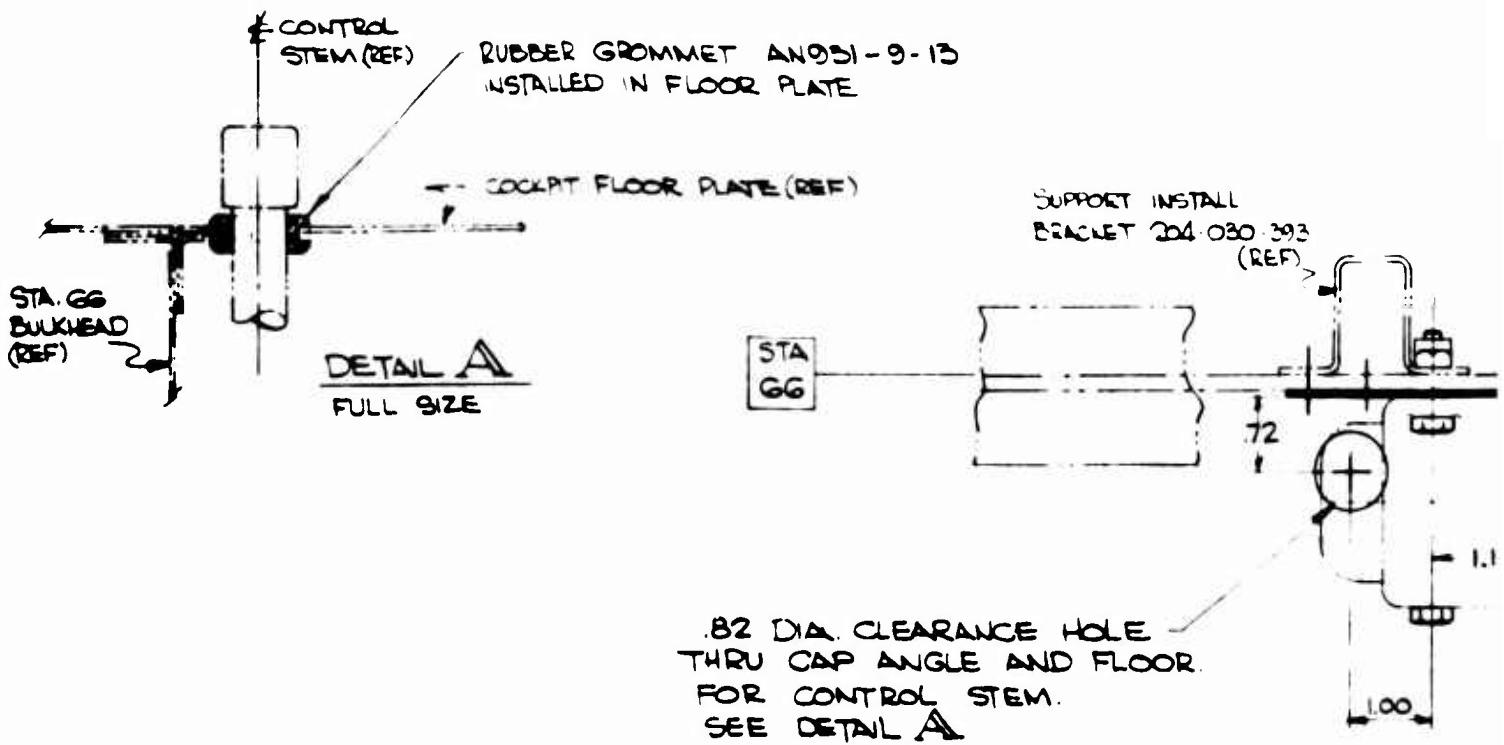
L.H. SIDE OF AIRCRAFT
SCALE: 1/4 APPROX.

⚠ THIS PART RE
AND INERTIA R
CHANGE RESU

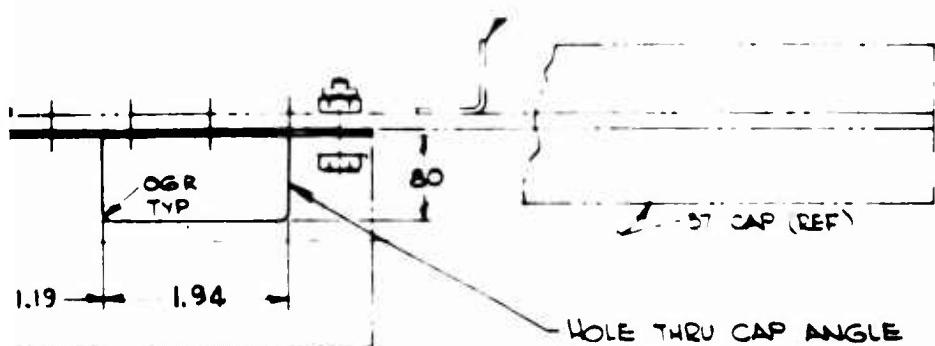


B

REPLACES SHOULDER HARNESS PART NO AF 50D3770 (TYPE G)
1 REEL STRAP PART NO 0101238 (FAC SCIENT CO.). THIS
SULTS IN .10 LB WT DECREASE FOR EACH SEAT

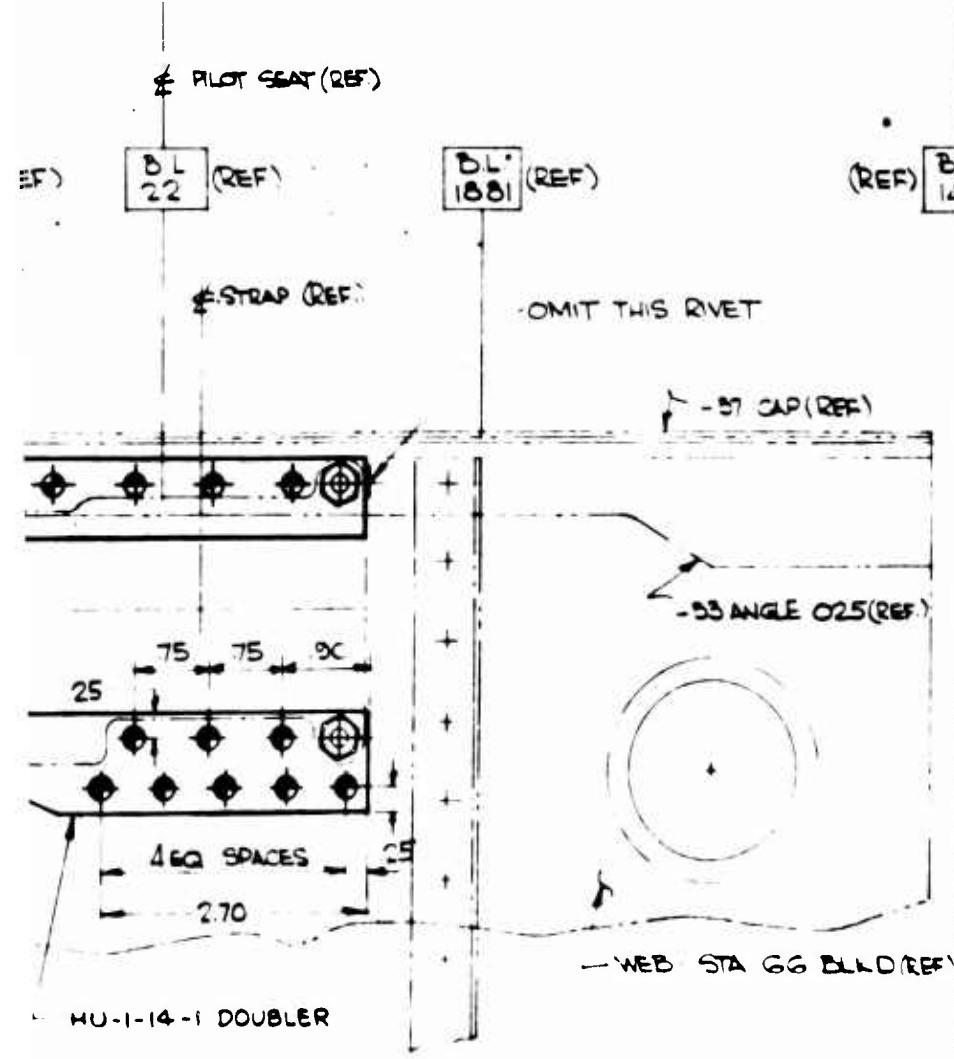


-29 STIFFENER (REF)



PLAN VIEW

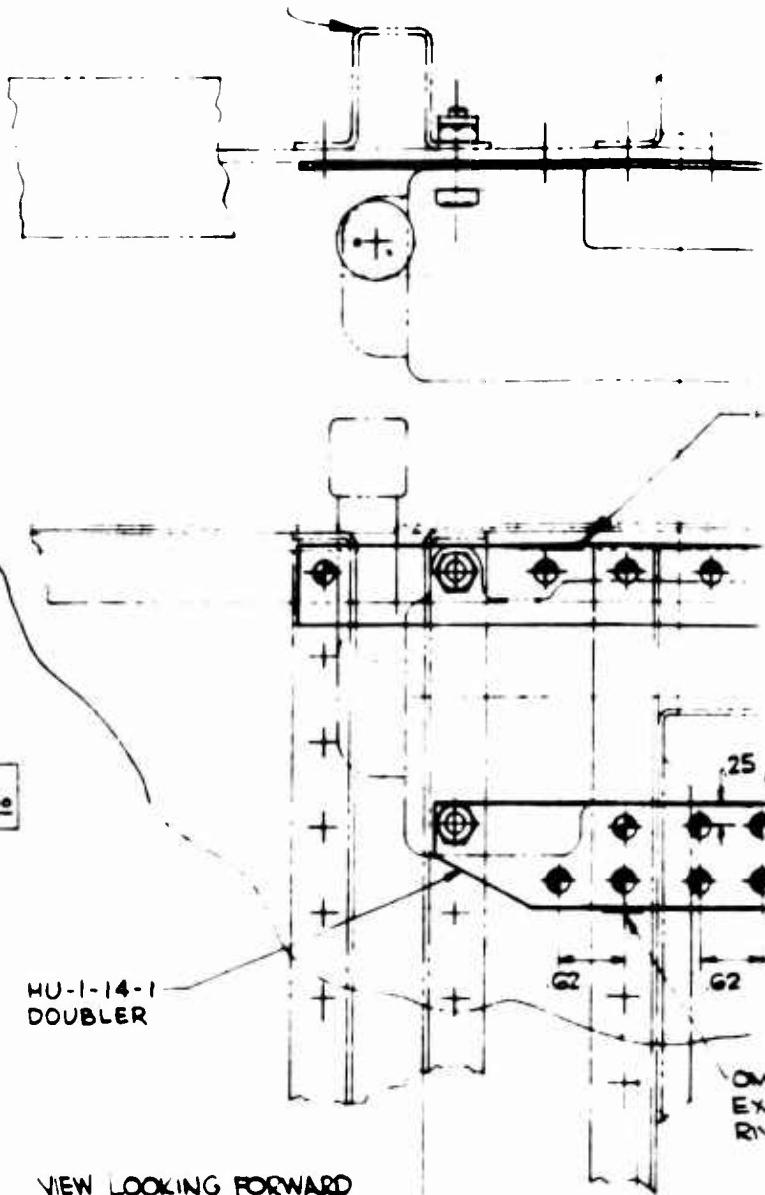
FLOOR PLATE NOT SHOWN
HU-1A AIRCRAFT ONLY



HU-1-14-1 DOUBLER

LOOKING FORWARD L.H. SIDE HU-1A AIRCRAFT ONLY

SUPPORT INSTALL
204-030-393 (REF)



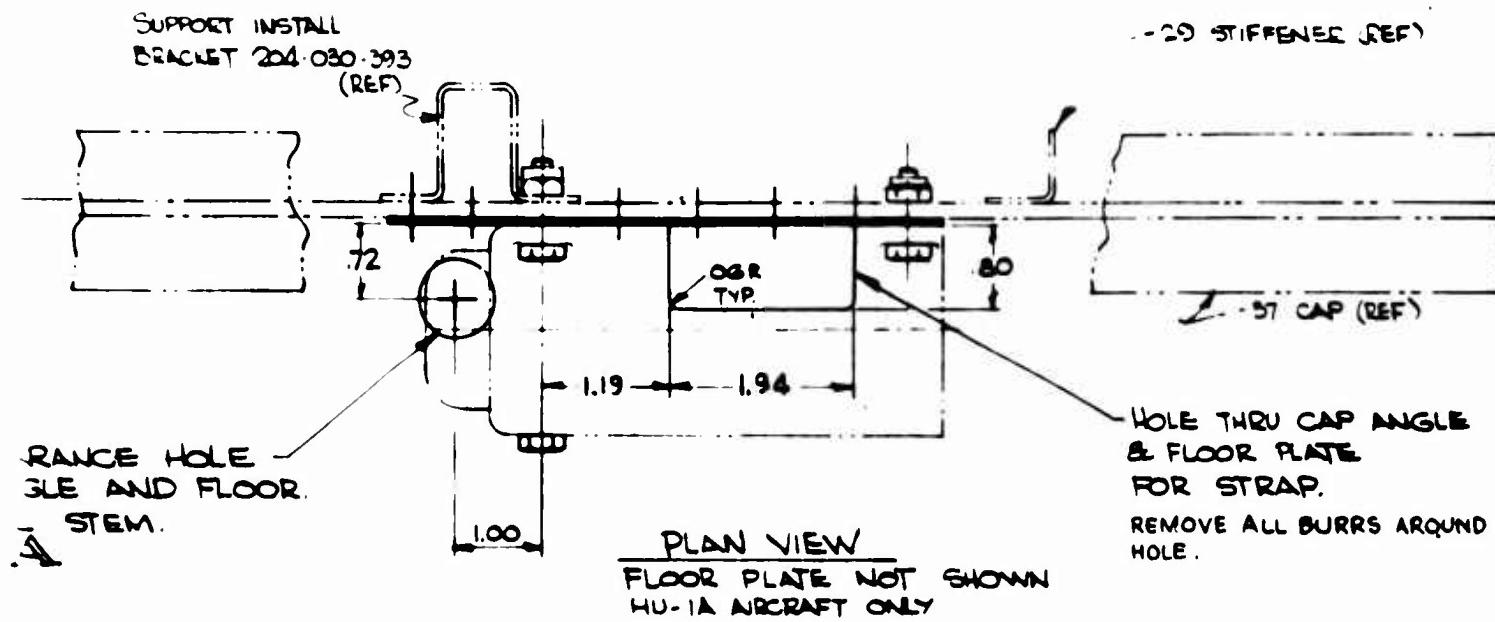
VIEW LOOKING FORWARD
L.H. SIDE STA GG BLKD
HU-1B AIRCRAFT ONLY
SAME AS HU-1A EXCEPT
AS NOTED

BL 2413

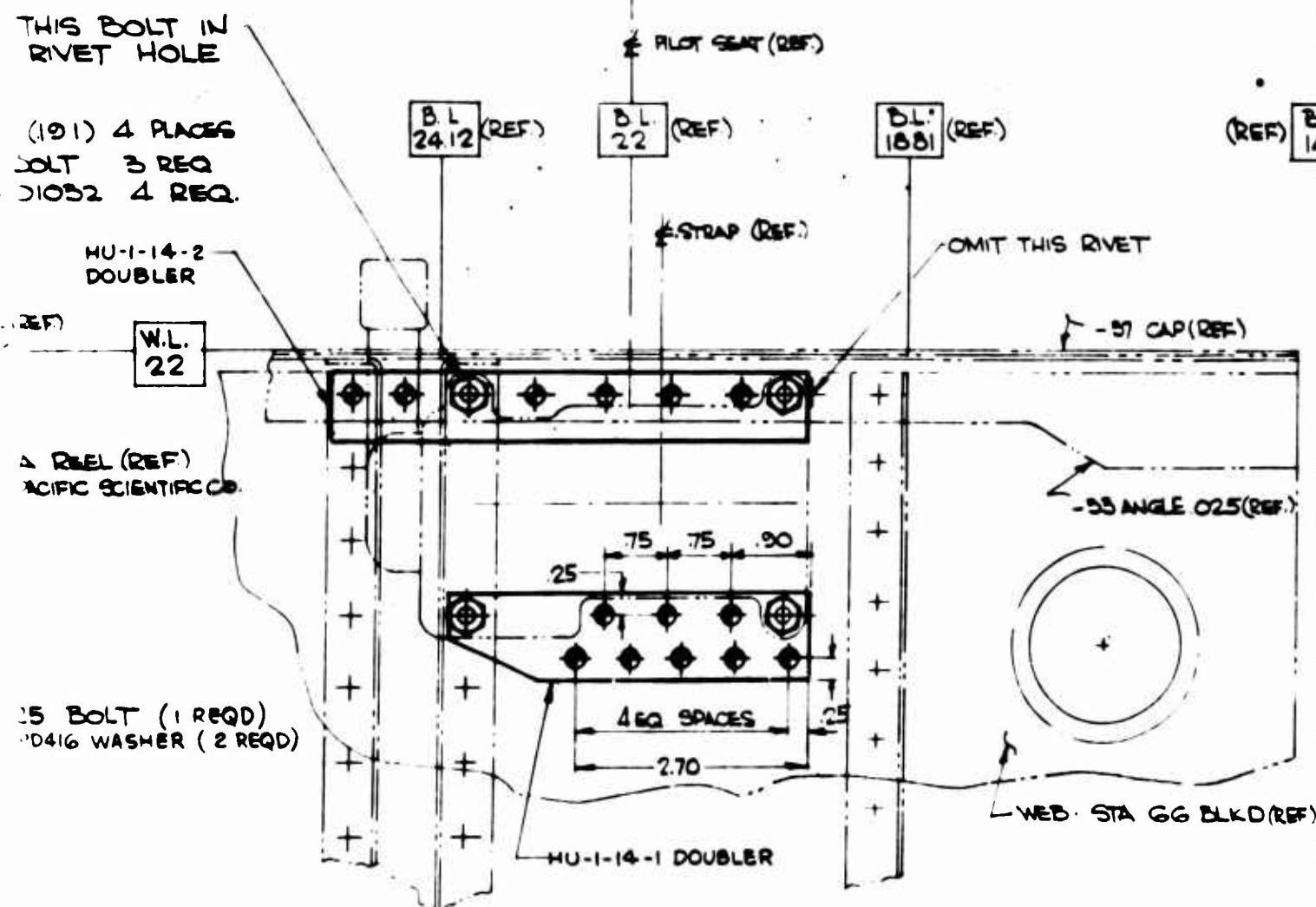
BL 22 (REF)

- 3 ⚪ SYMBOL - INDICATES REPLACING EXISTING RIVETS WITH AN 470AD5, DRILL THRU DOUBLERS HU-1-14-1 & 2.
- 2 ⚪ SYMBOL - INDICATES REPLACING EXISTING RIVETS WITH AN 426AD5, DRILL THRU & CSK (NEAR SIDE) OF DOUBLER HU-1-14-2.
- 1 ⚪ SYMBOL - INDICATES NEW AN 470AD4 RIVET, DRILL THRU DOUBLER HU-1-14-1

NOTES:



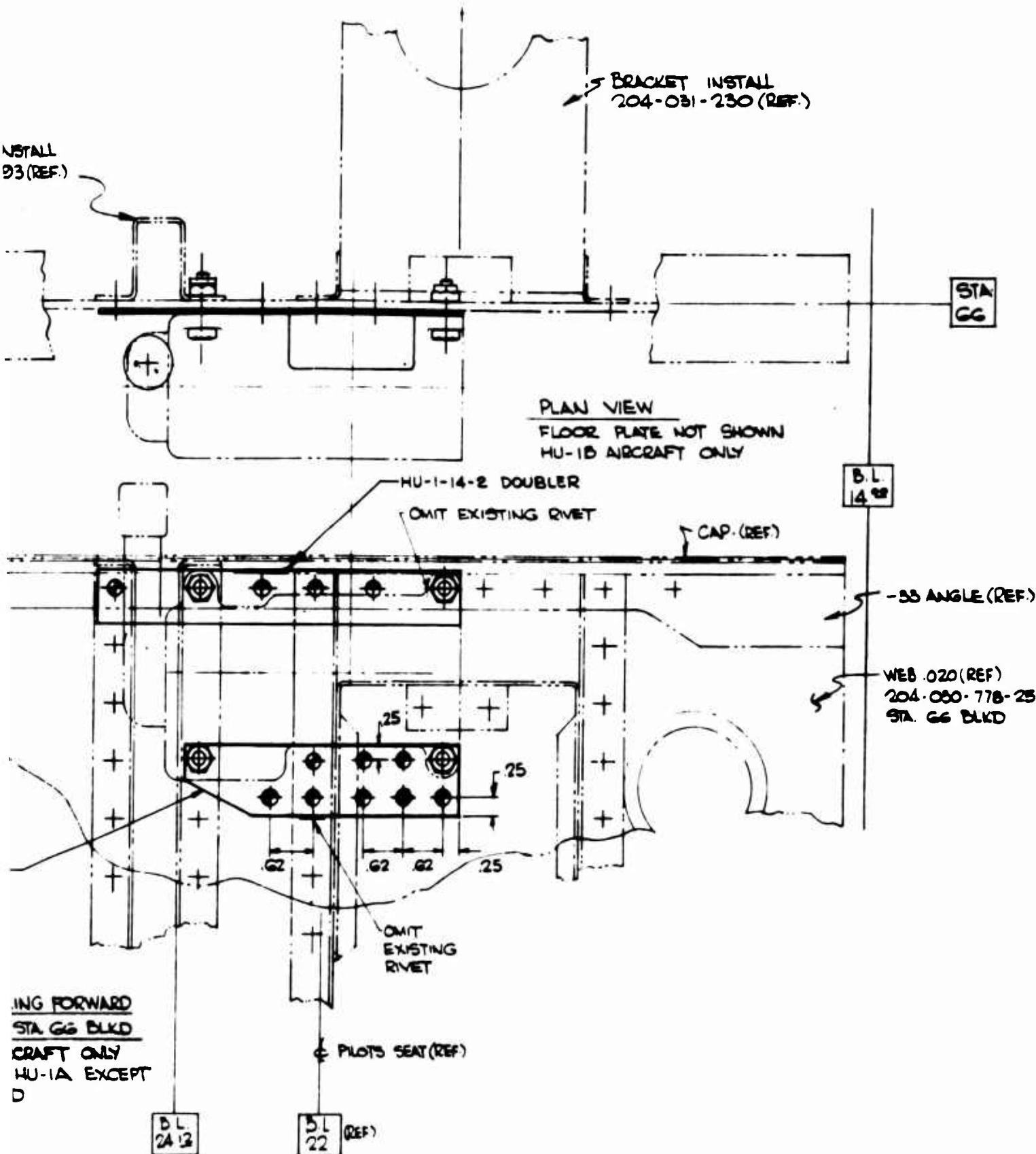
SUPPORT INS
204-030-393



VIEW LOOKIN
L.H. SIDE ST
HU-1B AIRCRAFT
SAME AS LH
AS NOTED

3. ◆ SYMBOL - I AN 470AC
 2. ◆ SYMBOL - II AN 42G A1 DOUBLER
 1. ◆ SYMBOL - III THRU DOU
- NOTES

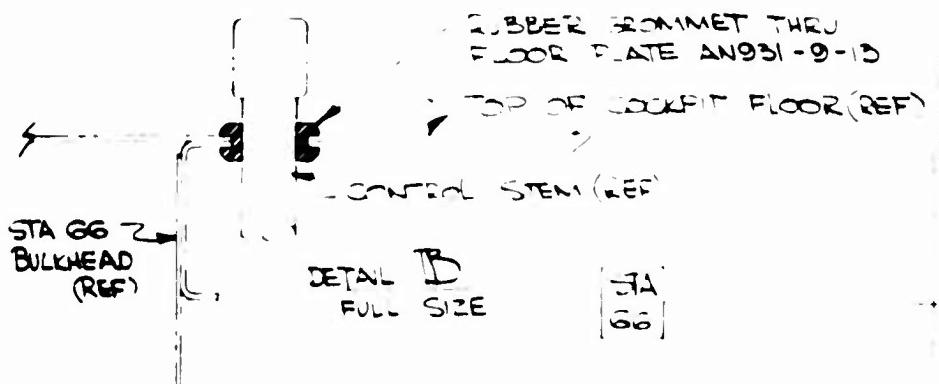
VIEW LOOKING FORWARD L.H. SIDE HU-1A AIRCRAFT ONLY



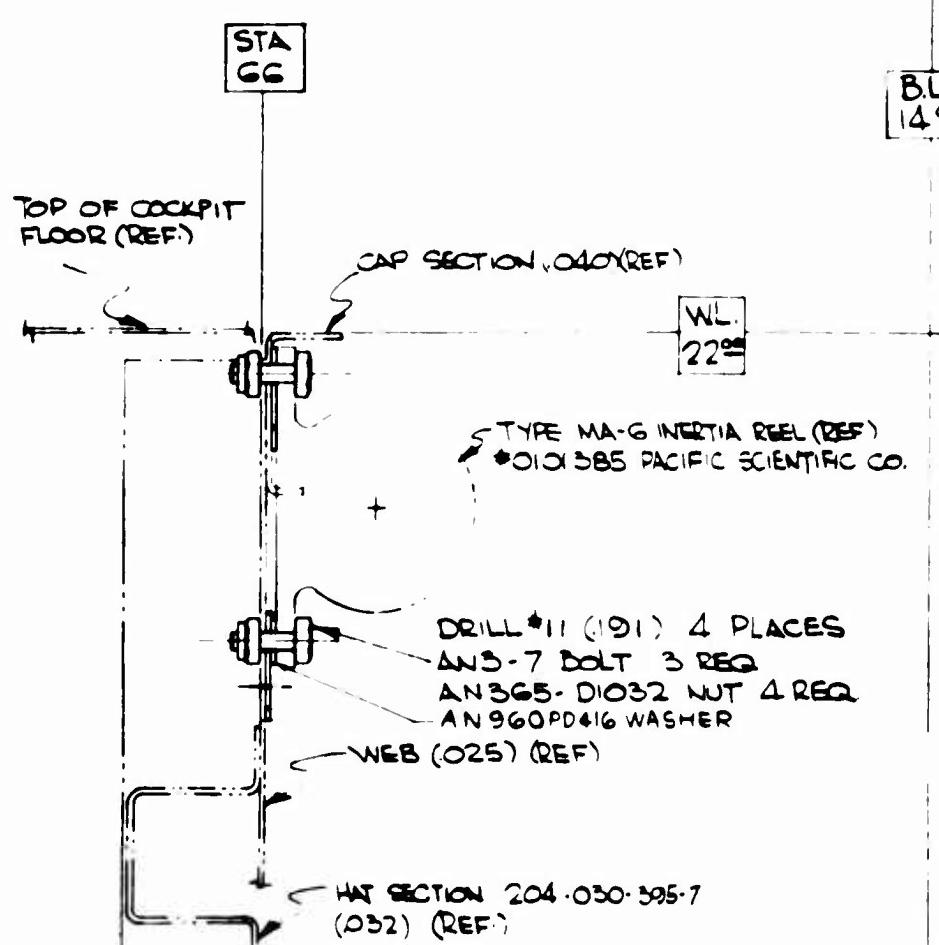
L-INDICATES REPLACING EXISTING RIVETS WITH
ADS, DRILL THRU DOUBLERS HU-1-14-1 & 2.

-INDICATES REPLACING EXISTING RIVETS WITH
ADS, DRILL THRU & CSK (NEAR SIDE) OF
R HU-1-14-2.

-INDICATES NEW AN 470 AD4 RIVET, DRILL
DOUBLER HU-1-14-1

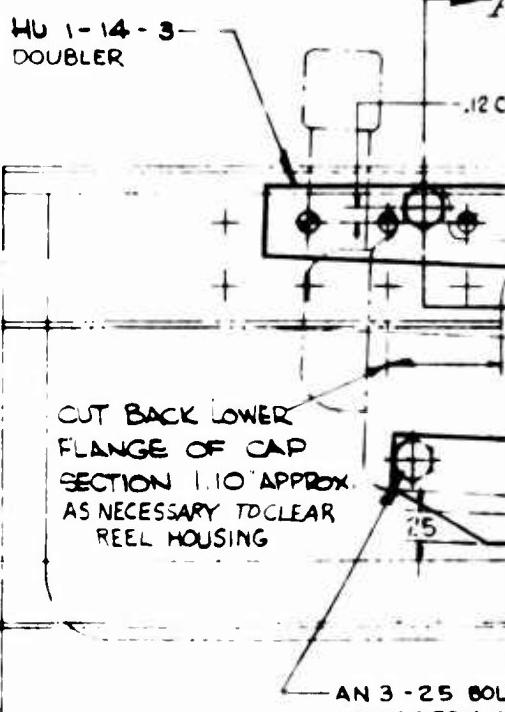


SUPPORT B
204-030



.812 DIA CLEARANCE
HOLE FOR CONTROL
STEM THRU CAP ANGLE
AND FLOOR PLATE
SEE DETAIL B

BL.
14.00



SUPPORT
BRACKET (REF)

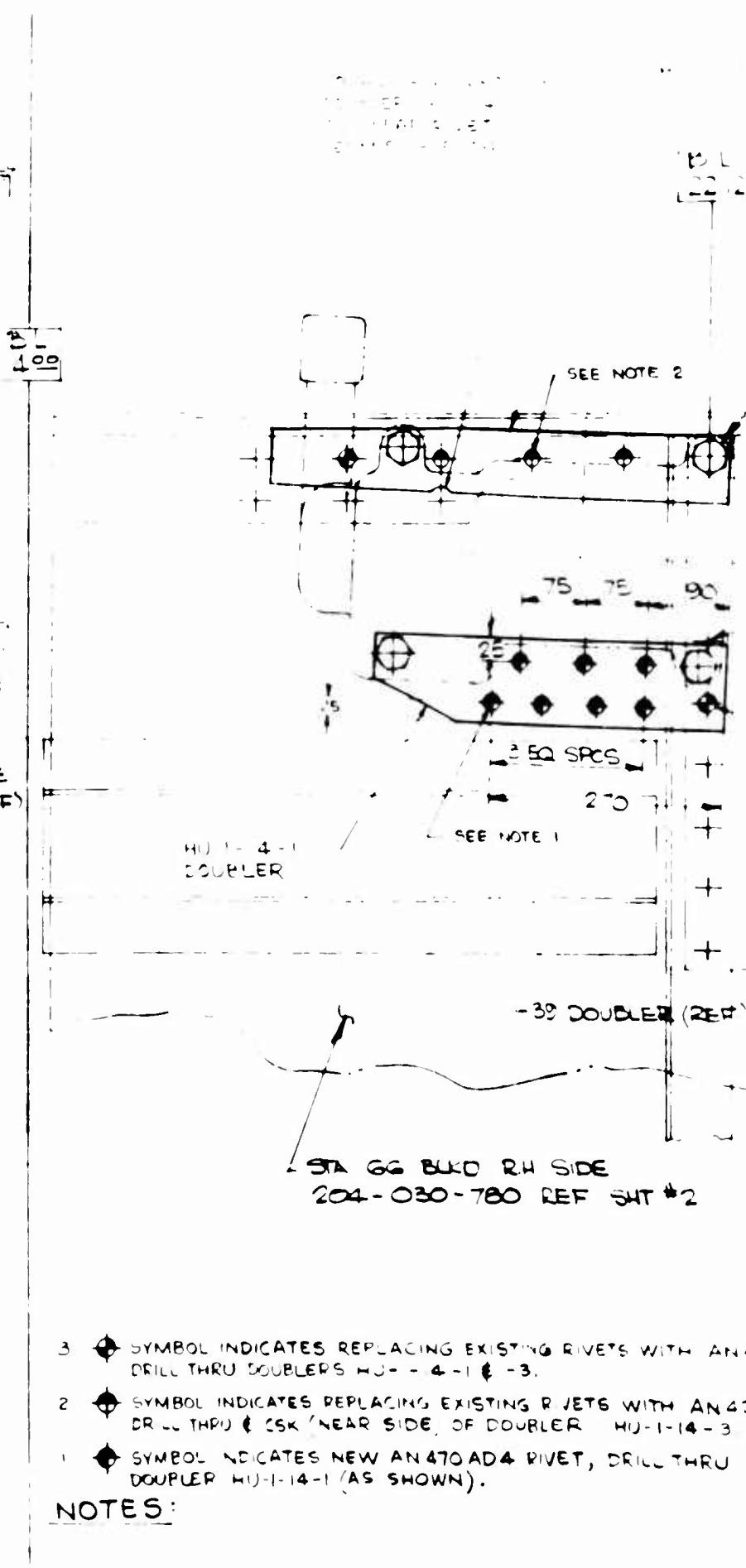
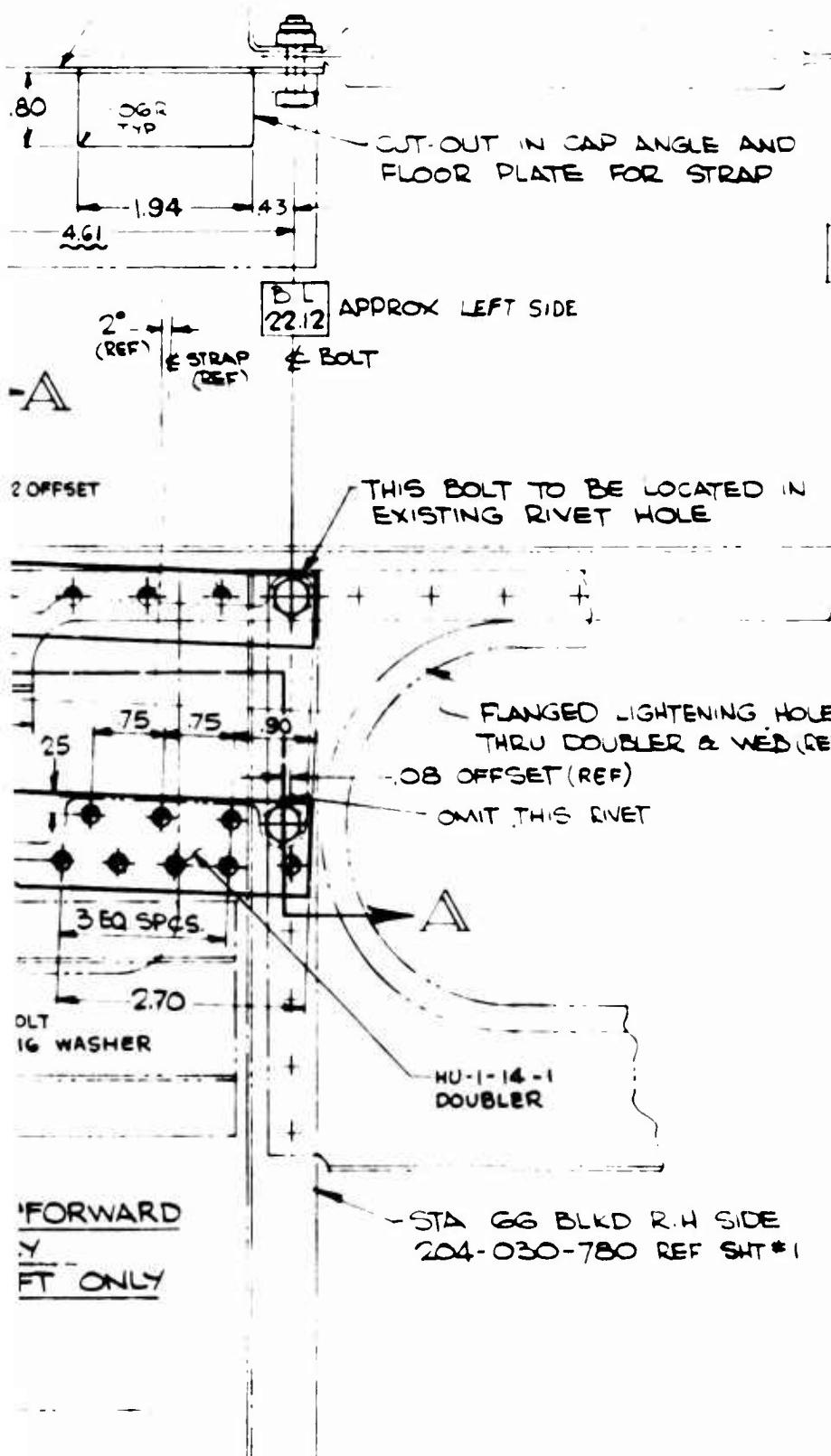
SECTION A
LOOKING OUTBOARD
FULL SIZE

VIEW LOOKING IF
R.H. SIDE ONLY
HU-1A AIRCRAFT

A

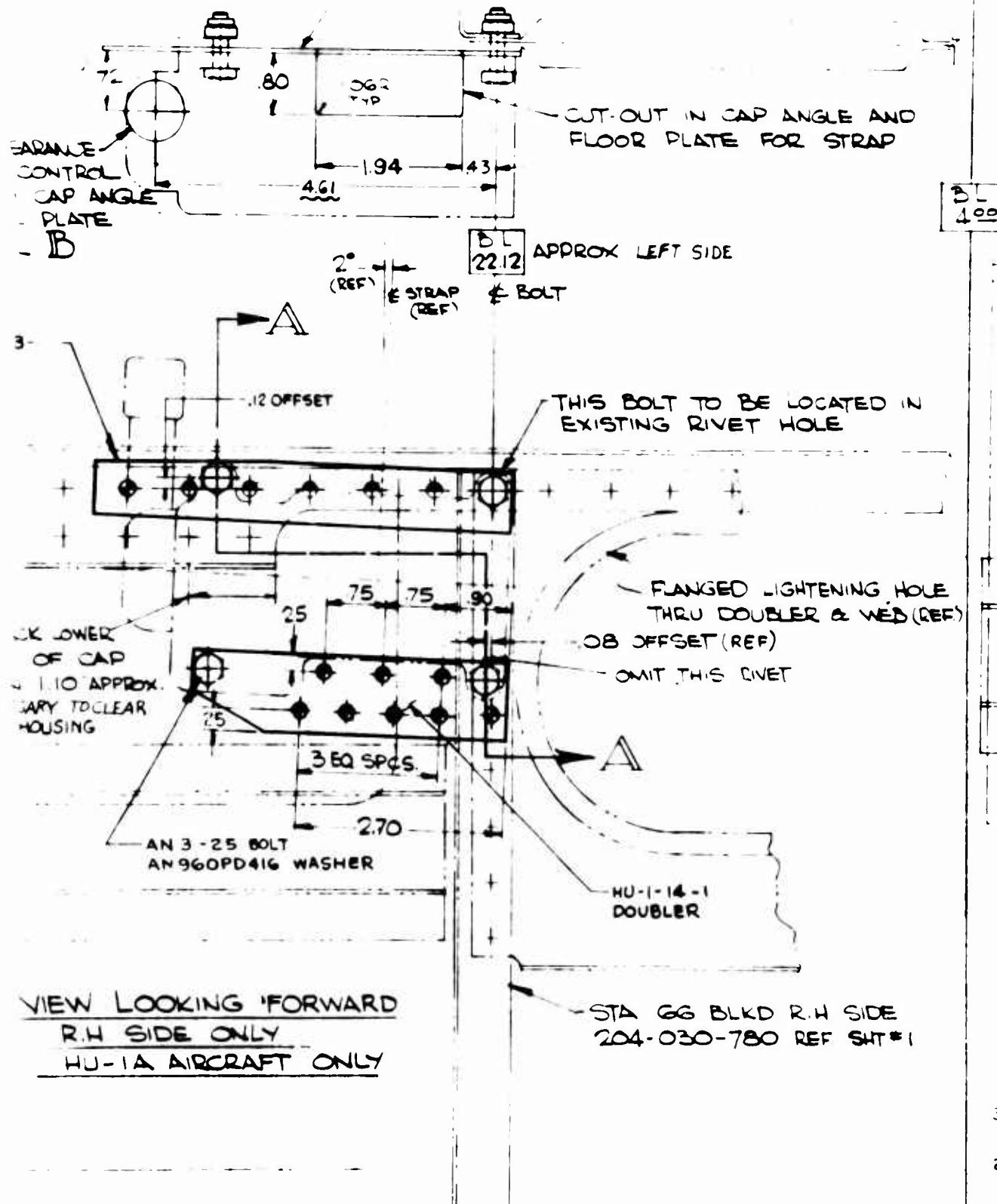
BRACKET
O-395 (REF)

HU-1-14-3 (REF)



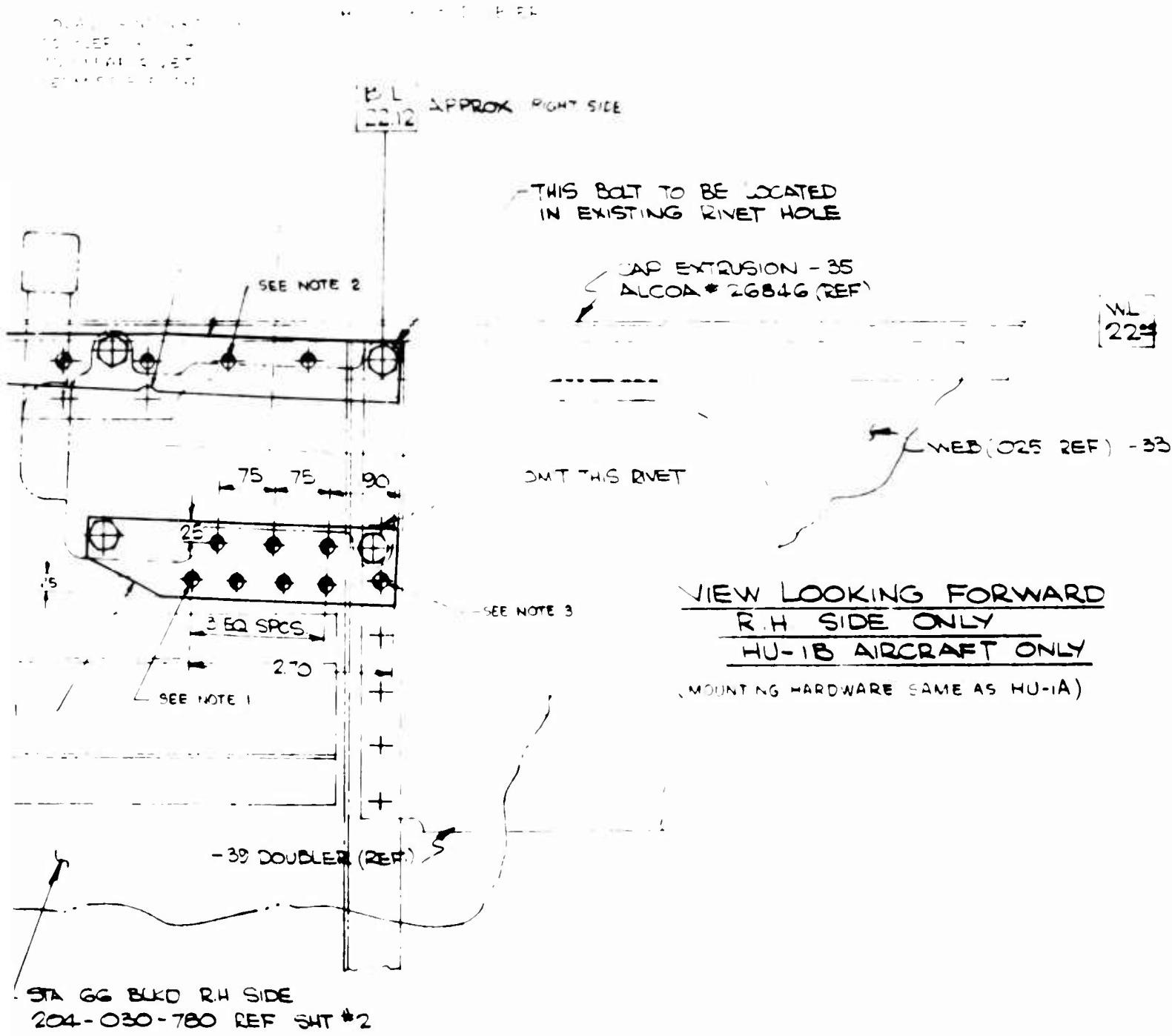
SUPPORT BRACKET
204-030-395 (REF)

HU-1-14 - 3 (REF)



3.  SYMBOL INDICATES DRILL THRU DOUBLE
 2.  SYMBOL INDICATES DRILL THRU & CSK (
 1.  SYMBOL INDICATES DOUBLER HU-1-1A-

NOTES:



ES REPLACING EXISTING RIVETS WITH AN470ADS,
LERS HU-1-14-1 & -3.

ES REPLACING EXISTING RIVETS WITH AN436ADS,
(NEAR SIDE) OF DOUBLER HU-1-14-3

ES NEW AN470AD4 RIVET, DRILL THRU
4-1 (AS SHOWN).

B

FRAMES

SEAT ASSEM & INSTALL
PILOT & CO-PILOT
204-070-700 (REF)

SEAT - POSITION
(REF) FULL FWD- FULL UP

AN3-10A BOLT (2)
AN363-1032 NUT (2)
AN 0960PD10 WASHER (3)
THRU EXISTING HOLE
IN SEAT BUCKET

RELOCATE THIS BOLT
TO POSITION SHOWN

SEAT - POSITION
FULL DOWN - FULL FWD (REF)

TOP OF COCKPIT FLOOR
(REF)

G38 CARRIAGE (REF)

STA
4122 APPROX (REF)
SEAT FULL FWD
(AGAINST STOP)

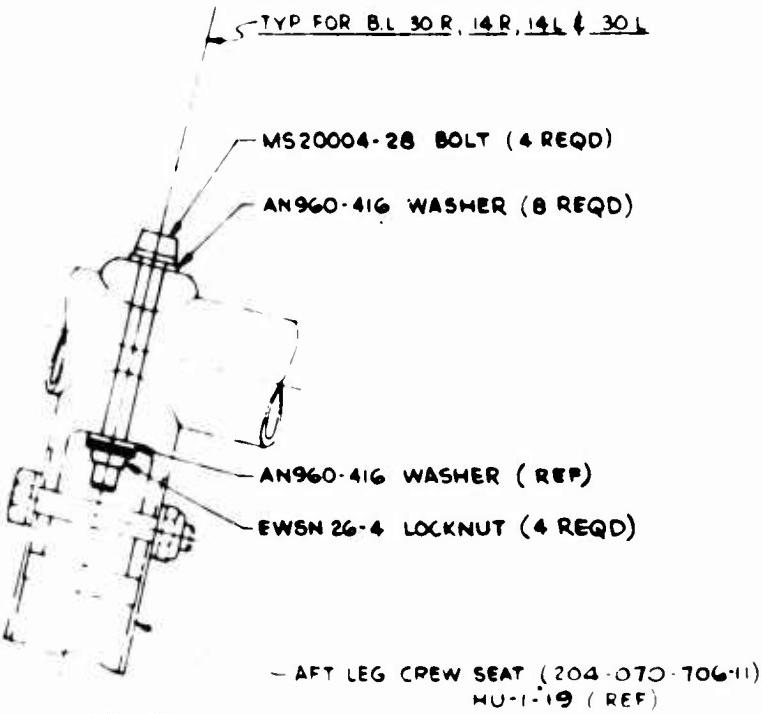
CHANNEL
ASSEM (REF)

CLAMP
SEAT
BUCKET (REF)

VIEW / A

STA
66

1
FRAMES



VIEW B-B

SCALE - $\frac{1}{4}$
(REPLACES EXISTING HARDWARE)
LOOKING FWD

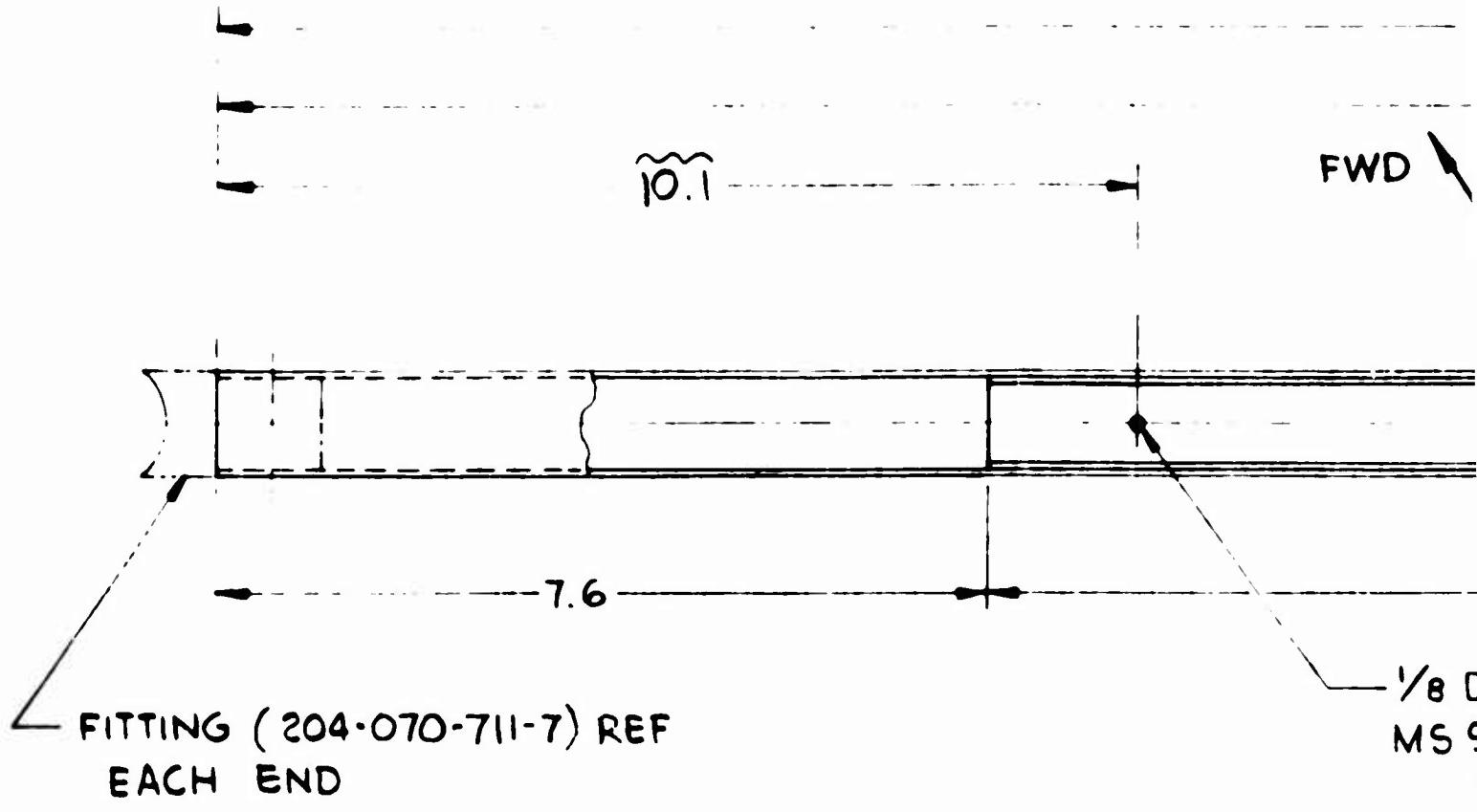
MOVE EXISTING CLAMP
TO THIS LOCATION
AN742 - 4 CLAMP
AN520 - 10RG SCREW
AN960 - PD10 WASHER
AN 363 - 1052 NUT
(REF.)

RELOCATE EXISTING INERTIA CONTROL ASSEM.
TO POSITION SHOWN
PART NO 0101389-09 (REF)
(PACIFIC SCIENTIFIC CO)

[W.L.]
22

INERTIA REEL INSTALLATION
AND FLOOR MODIFICATION
HU-1-16, SHEETS 1, 2 & 3
(REF)

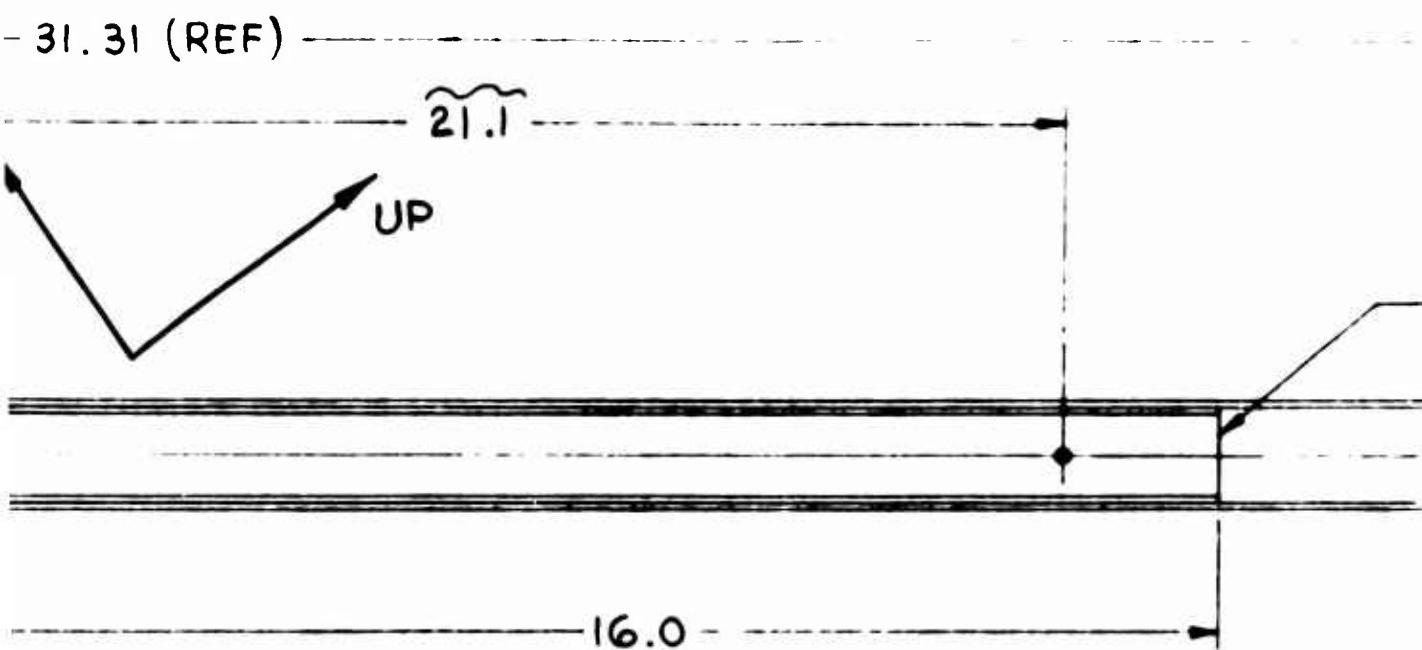
BULKHEAD - TA on
204-030-780 REF



FINISH:

ZINC CHROMATE REINFORCEMENT TUBE (DETAIL -1)
ALL OVER BEFORE DRILLING. SPRAY PAINT DRILLED HOLES.

A



DRILL (2 HOLES IN LINE) THRU
9048-108 (PIN - SPRING)
(2 PLACES)

FRONT TUBE
204-070-706

REF

EMENT
G. SP

31.31 (REF)

21.1

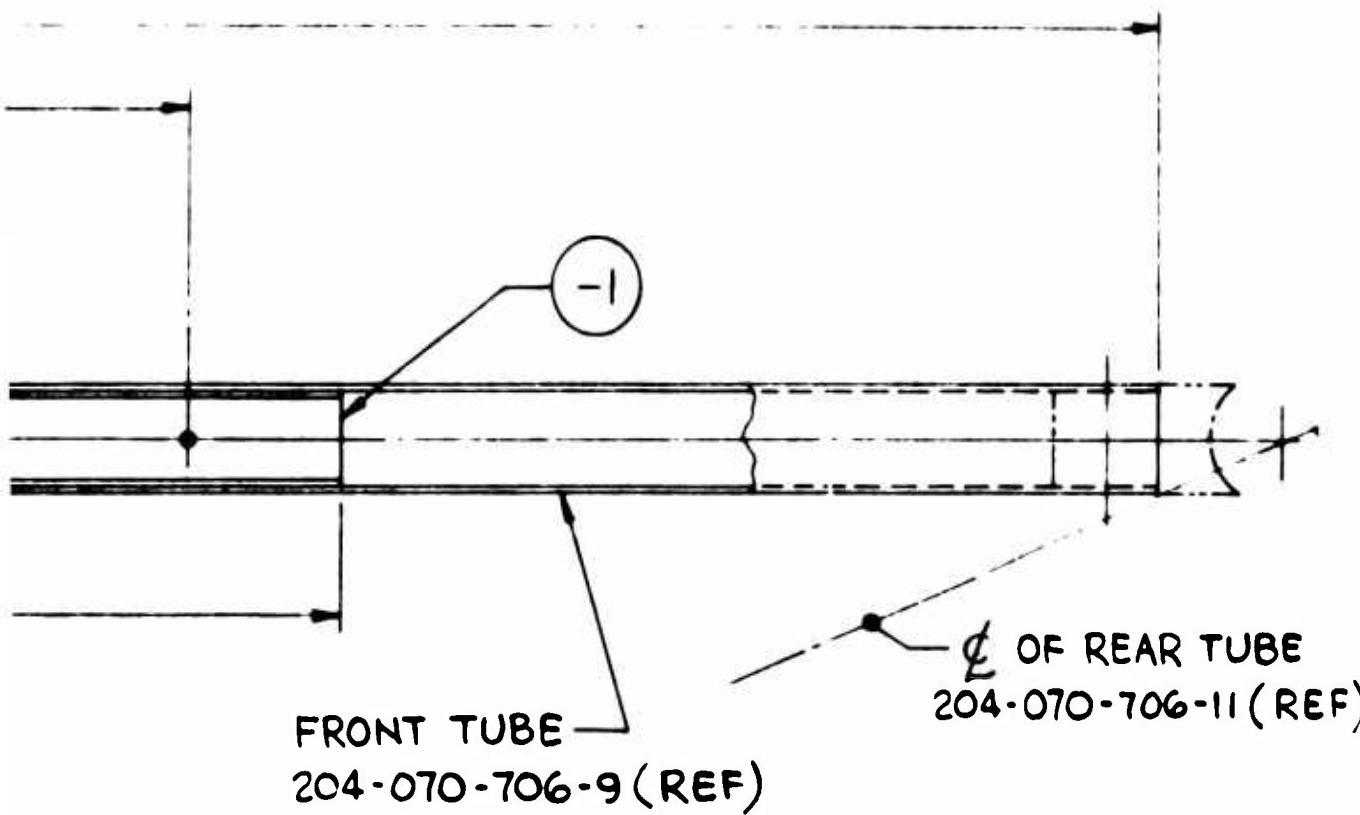
FWD

UP

16.0

1/8 DRILL (2 HOLES IN LINE) THRU
MS 9048-108 (PIN - SPRING)
(2 PLACES)

R TUBE (DETAIL -1)
PRAY PAINT DRILLED HOLES.



B

FRAMES

ALIGN HOLE 'X'
WITH EXISTING
MATING HOLE

FITTING HU-1-12
(REF, MODIF. OF
204-070-742-1)

"F" DRILL (.257) FAR SIDE,
THRU DETAIL-1 ONLY
MATCH EXISTING HOLES
(6 PLACES)

27.27 (REF)

9.2

"F" DRILL (.257)

.40

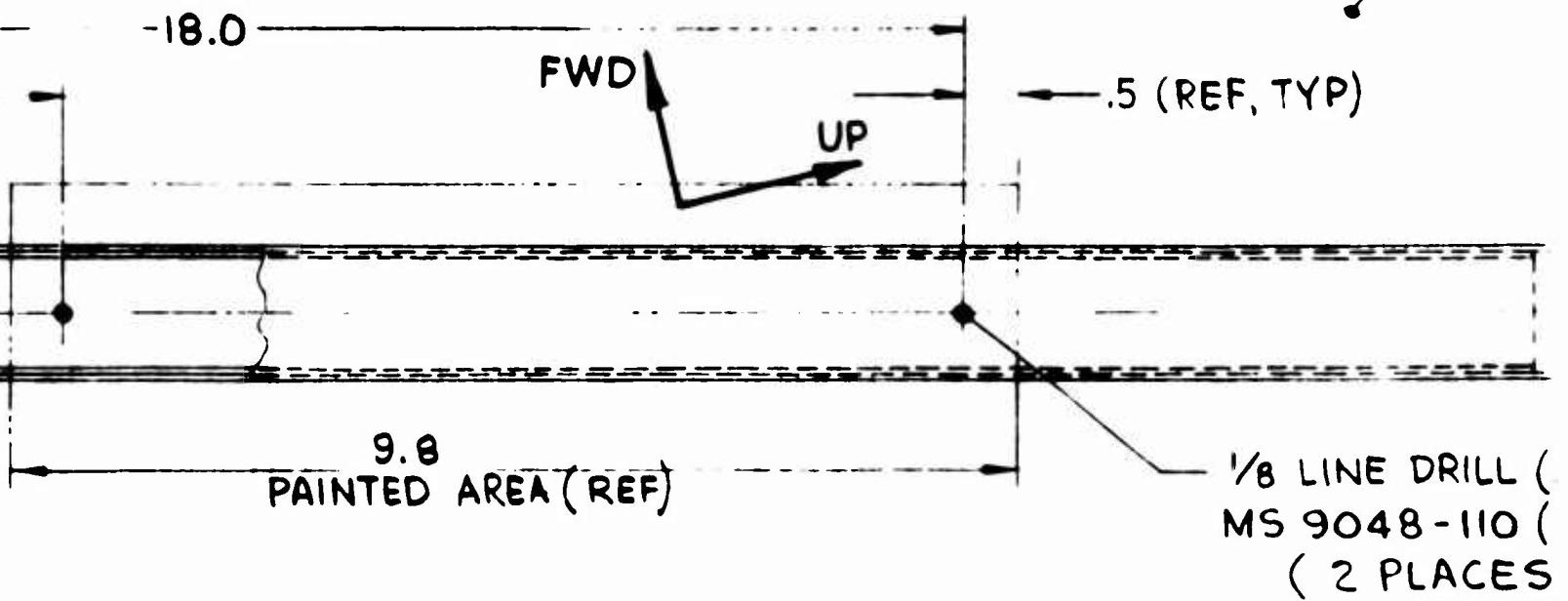
INSTALLATION PROCEDURE

- (a) ALIGN HOLE 'X' AS SHOWN
- (b) PIN IN PLACE (2 PLACES).
- (c) MATCH DRILL 6 HOLES AS SHOWN.
- (d) ZINC CHROMATE ALL EXPOSED SURFACES (DUE TO DRILLING)

FINISH:

A

ZINC CHROMATE REINFORCEMENT TUBE
ALL OVER BEFORE DRILLING.



57) FAR SIDE ONLY (HOLE 'X')

20.7

-1 DETAIL

27.27 (REF)

-18.0

9.2

FWD

9.8
PAINTED AREA (REF)

.40

"F" DRILL (.257) FAR SIDE ONLY (HOLE 'X')

20.7

ES (DUE TO DRILLING)

NT TUBE

OF FRONT TUBE (204-070-706-9 REF)

.5 (REF, TYP)

UP

FITTING (204-070-711-9 REF)

1/8 LINE DRILL (.125) THRU
MS 9048-110 (PIN - SPRING)
(2 PLACES)

REAR TUBE
204-070-706-11 (REF)

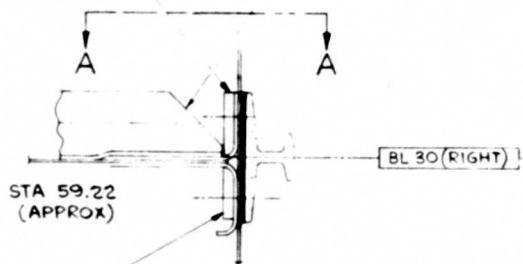
-1 DETAIL

E

FRAMES

-5 RADIUS BLOCK
(6 REQD)
(2 AT THIS LOCATION)

-45° CHAMFER AS REQD (TYP)



-3 RADIUS BLOCK
(16 REQD)
(4 AT THIS LOCATION)

-3 (BLOCK)
(4 AT THIS LOCATION)

STA 59.22
(APPROX)

[BL 14 (RIGHT)]

-3 (BLOCK)
(4 AT THIS LOCATION)

-4 RADIUS BLOCK
(7 REQD)
(3 AT THIS LOCATION)

STA 59.22
(APPROX)

B

[BL 14 (LEFT)]

-4 (BLOCK)
(4 AT THIS LOCATION)

-3 (BLOCK)
(4 AT THIS LOCATION)

STA 57.43
(APPROX)

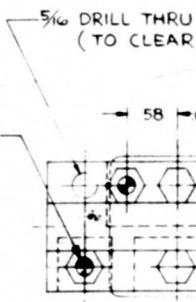
[BL 30 (LEFT)]

-5 (BLOCK)
(4 AT THIS LOCATION)

WL 22.00

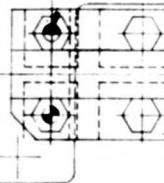
A

NO 11 DRILL (.191 DIA)
6 HOLES MARKED
AN3-5A BOLT (REF)

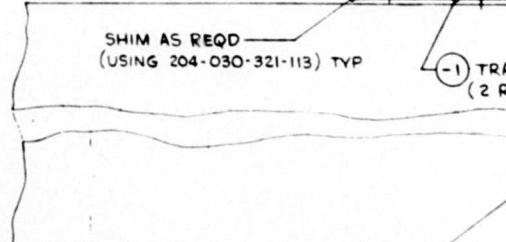


AN 3-5A BOLT
AN 960PDOL WASHER
AN 365-1032 NUT
(32 PLACES)

STA
52.00



DRILL OUT EXISTING RIVET (THRU FLOOR
DOUBLER & BEAM, TYP) AND TRANSFER
5/32 HOLE TO NEW TRACK - 1 OF 2.
(6 PLACES, MARKED)
REPLACE WITH AN3-5A BOLTS (REF)

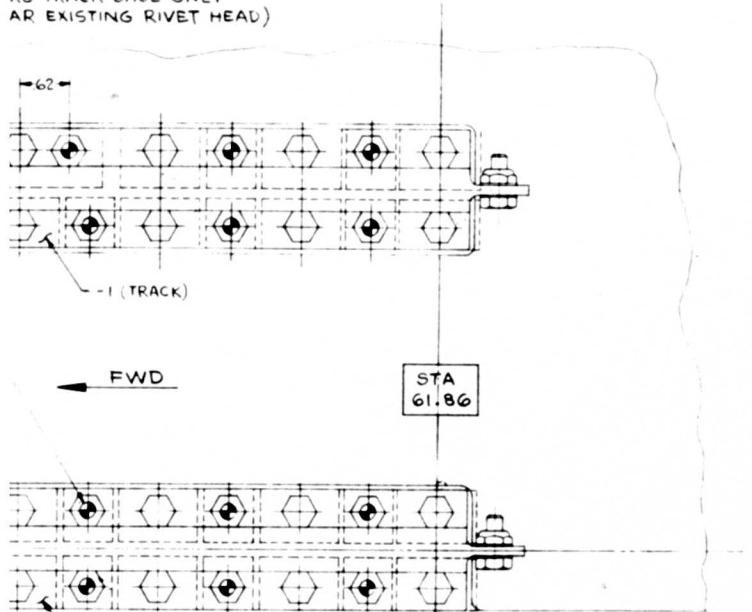


SHIM AS REQD
(USING 204-030-321-113) TYP

EDGE OF DOUBLER
(204-030-321-29)

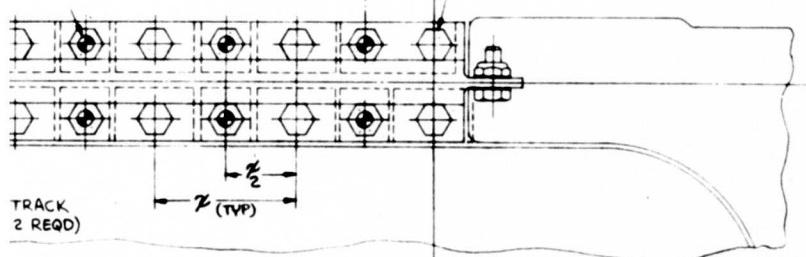
DOOR, MA
(SAME - EXCEPT)

RU TRACK BASE ONLY
(AR EXISTING RIVET HEAD)

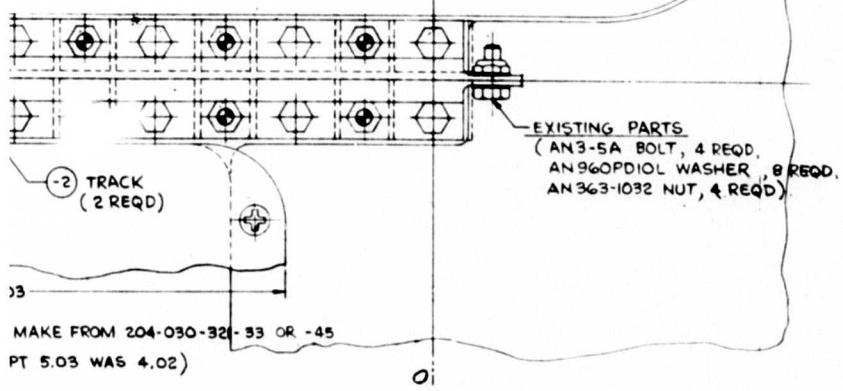


AFTER LOCATING HOLES AS SHOWN
DRILL $\frac{1}{8}$ PILOT HOLES IN TRACK.
POSITION TRACK IN PLACE (USING
AT LEAST 4 BOLTS ON EACH TRACK)
THEN DRILL THRU TRACK, FLOOR,
DOUBLER & BEAM USING NO. 11 DRILL
(.191 DIA) 26 PLACES MARKED .86

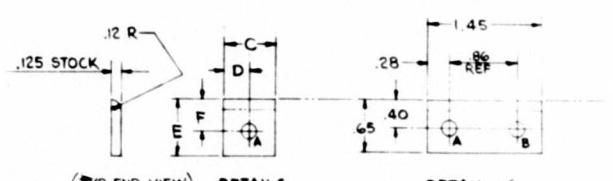
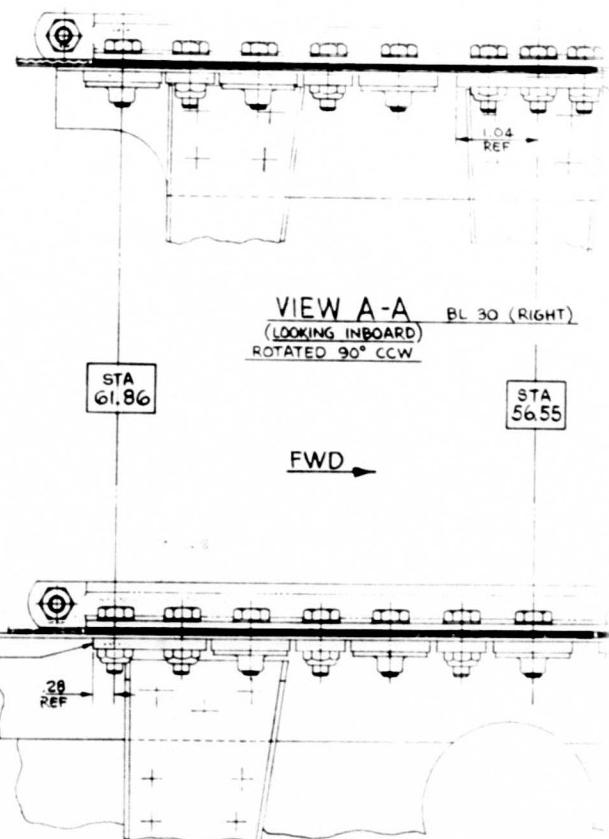
EXISTING BOLTS
USE AT LEAST 4
TO LOCATE TRACK
BEFORE FINAL
MATCH DRILLING.
(EACH TRACK)



EDGE OF FLOOR (204-030-321-25)



EXISTING PARTS
(AN3-5A BOLT, 4 REQD,
AN960PD10L WASHER, 8 REQD,
AN363-1032 NUT, 4 REQD)



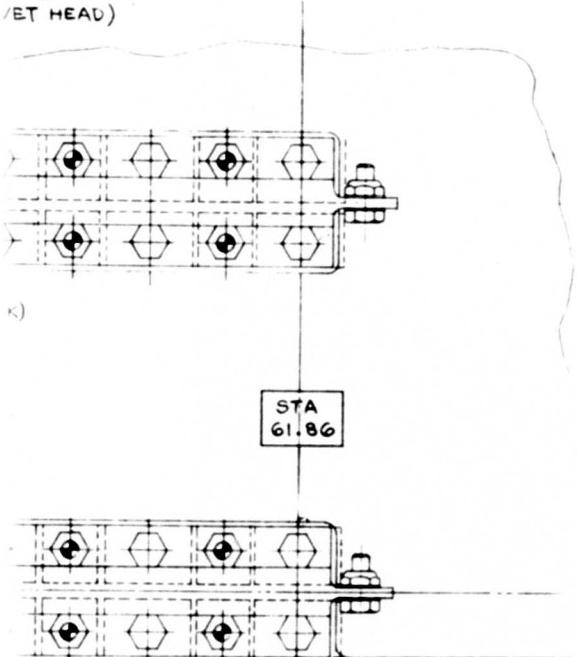
HOLE "A" = $\frac{196}{190}$ DIA
HOLE "B" = $\frac{196}{190}$ DIA

DASH NO.	DIM "C"	DIM "D"	DIM "E"	DIM "F"
- 3	.66	.33	.65	.35
- 4	.66	.33	.65	.40
- 5	.66	.33	.75	.45

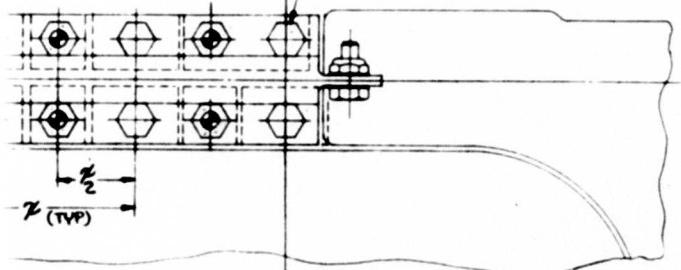
BLOCK - RADIUS

DETAILS - 3 THRU -

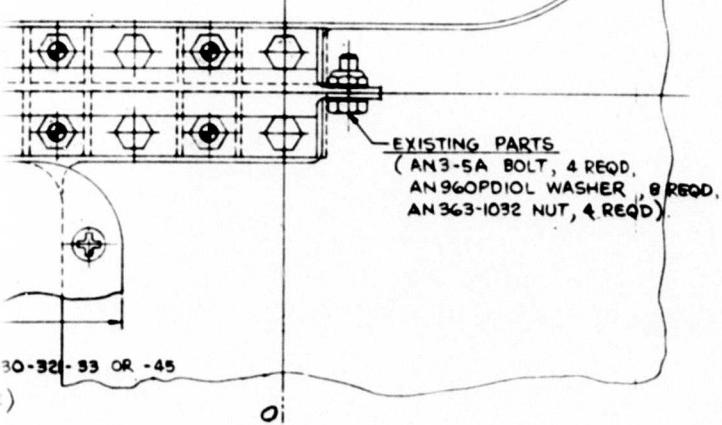
ONLY
(BT HEAD)



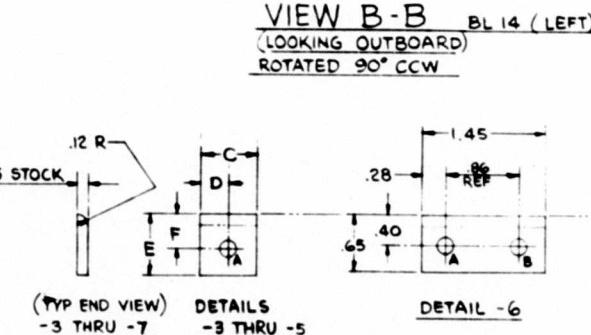
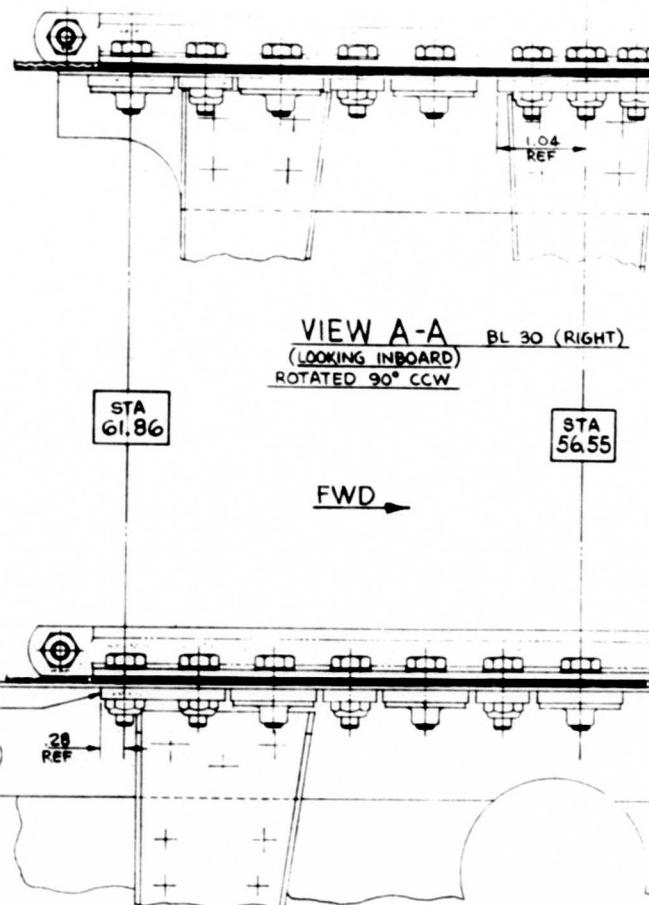
HOLE AS SHOWN
HOLE IN TRACK.
ACK IN PLACE (USING
BOLTS ON EACH TRACK)
THRU TRACK, FLOOR,
BEAM USING NO. 11 DRILL
6 PLACES MARKED - 86 -



OR (204-030-321-28)



30-321-53 OR -45



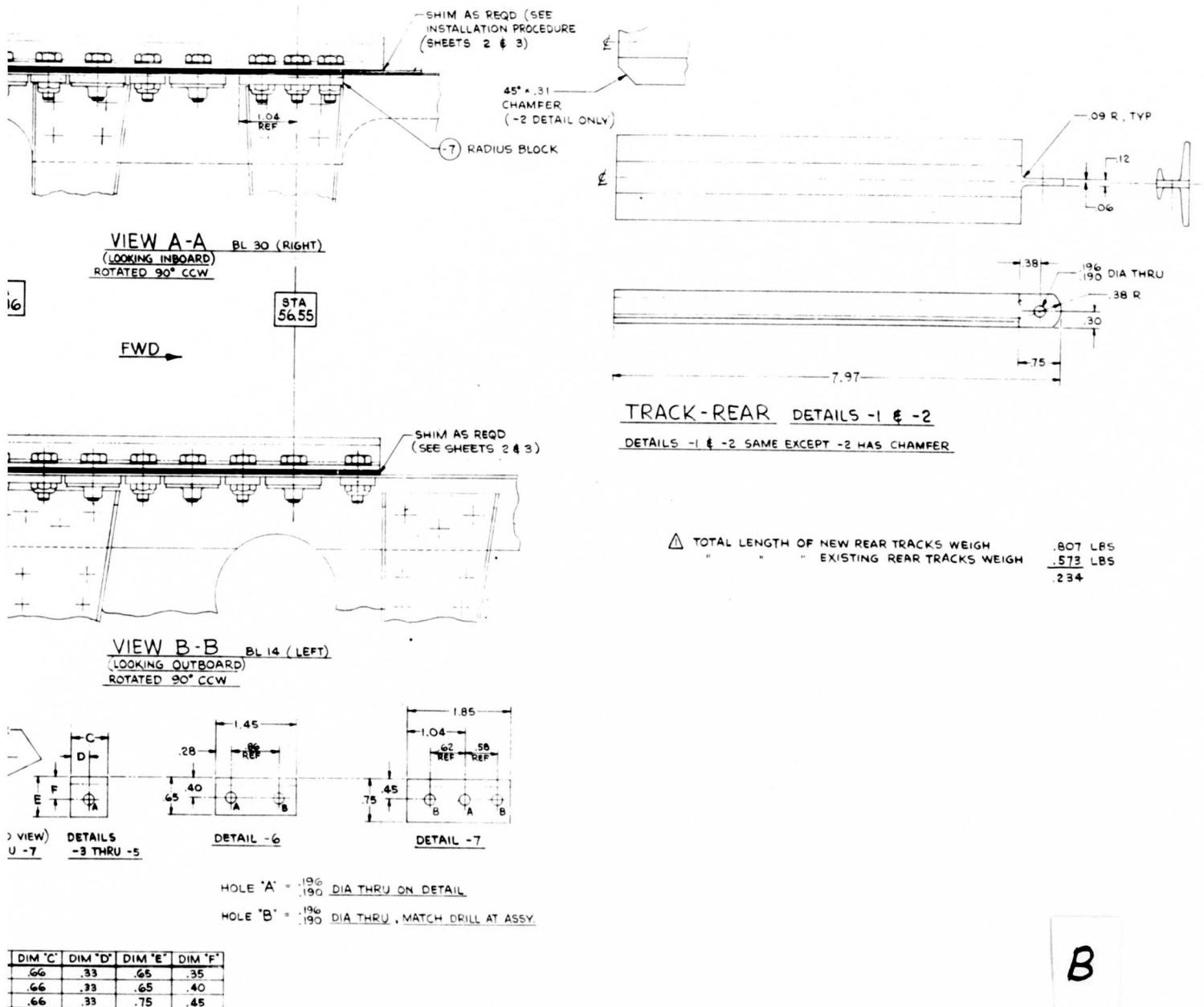
HOLE 'A' = $\frac{19}{190}$ D

HOLE 'B' = $\frac{19}{190}$ D

DASH NO.	DIM "C"	DIM "D"	DIM "E"	DIM "F"
-3	.66	.33	.65	.35
-4	.66	.33	.65	.40
-5	.66	.33	.75	.45

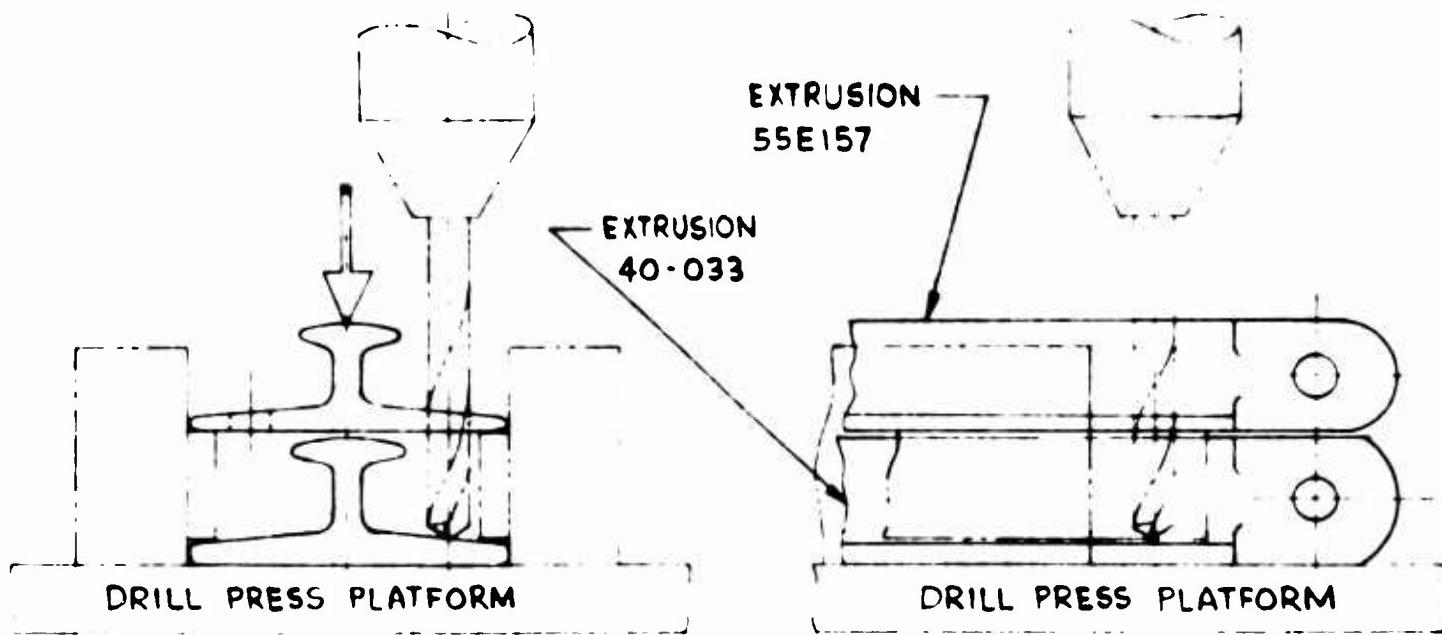
BLOCK-RADIUS

DETAILS -3 THRU



S-K - RADIUS DETAILS -3 THRU -8
(FOR INSTALLATION PROCEDURE)
SEE SHEETS 2 & 3.

1. Installation Procedure - Aft Seat Tracks (Bell Std. Extrusion 40-033) Identify and remove existing tracks (Extrusion 55E157) and match drill new tracks (Extrusion 40-033) as illustrated:



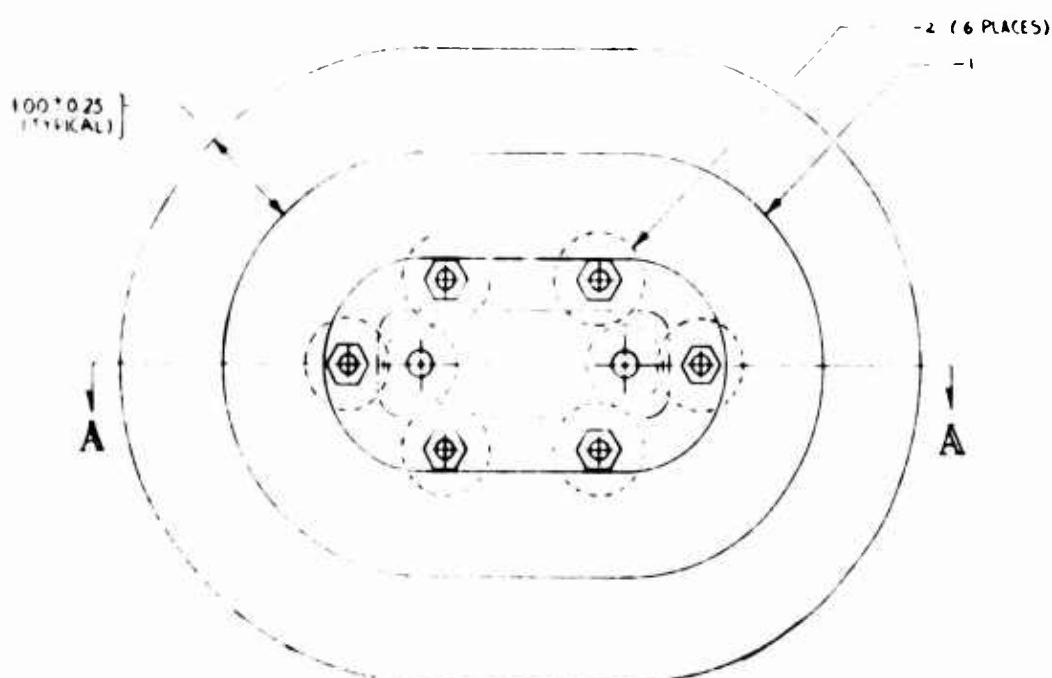
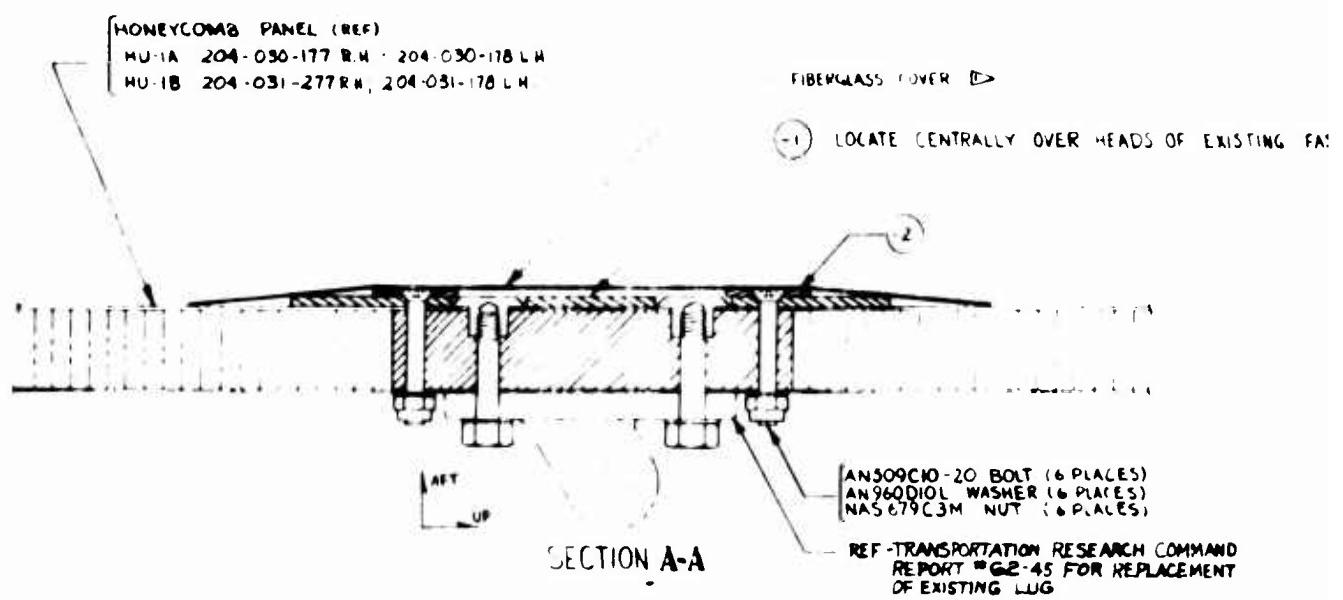
The above sketch illustrates one method of match drilling the parts, any method which ensures a perfect match of the hole pattern is acceptable. This step is very important since it will guarantee that the new tracks are located in the identical position of the existing tracks.

2. Identify each newly drilled track, for its intended location, for example: B. L. 30L and
3. Drill out existing rivets in floor beams in the locations indicated by the symbol to 5/32 dia. as pilot holes.
4. (a) Drill out and remove existing nutplate (22 NA-17A-02) and radius block (204-030-165-9) at B. L. 14 (left), Station 61.86.
 (b) Drill out and remove existing nutplate (NAS 680 A3) and radius block (204-030-165-5) at B. L. 30 (right), Station 56.55.
5. Position new tracks and secure snugly with at least four existing bolts and nutplates. Holes marked to be located from beam to track and holes marked to be checked for clearance under the beam caps.
6. Remove tracks, and pilot drill (.125 dia.) all eight new holes in each track as shown.

7. a. Due to the increased length of the new tracks, about .75 inch will overhang the embossed flooring. This may require insertion of laminated aluminum shims (.8 x 1.5) between flooring and track to insure tracks will be straight after tightening all bolts.
- b. The new tracks are .085 higher than existing tracks. The shims and fillers may be removed from under the existing rear tracks to adjust the new tracks to the same height of forward tracks, if feasible. A suggested method is the removal of the phenolic spacers (.062 thick) and .023 of the laminated shims at B. L. 30 R, 14 R, and 30 L. At B. L. 14L remove the phenolic spacer (.093 thick) and add .008 of laminated shims.

If this method is not feasible (due to clearance of floor sheet cut-outs around the tracks), the adjustment can be made by removing some spacers from the rear tracks and adding similar spacers to the forward tracks. The top of all tracks must be in the same plane within .020 in. to insure that the seat will move without binding.
8. Reposition tracks and shims and drill eight No. 11 (.191) dia. holes through the track pilot holes and underfloor beam caps.
9. Remove track, deburr and clean, dip bottom portion of track in zinc chromate solution (cover all machined surfaces). Also spray paint the drilled holes in the underfloor beam caps.
10. Install tracks using necessary shims and spacers as noted. Caution! Do not overtorque the .19 dia. bolts.

1
MES

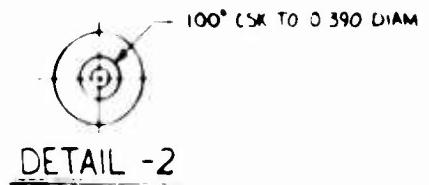


④ TOTAL WEIGHT CHANGE
HU-1A +1.56 LB
HU-1B +0.78 LB

④ USE ANY AVAILABLE FIBERGLASS MATERIAL.
IMPREGNATE CLOTH AND BOND TO BULKHEAD
USING EPOXY RESIN.

2 BOND -1 REINFORCING PLATE
AND BOND -2 WASHER TO
USE EPON 310 ADHESIVE.

1 MODIFY HU-1A 4 PLACES
AND BL 3962 R.H. &
MODIFY HU-1B 2 PLACES
(W.L. 3268)



FASTENERS

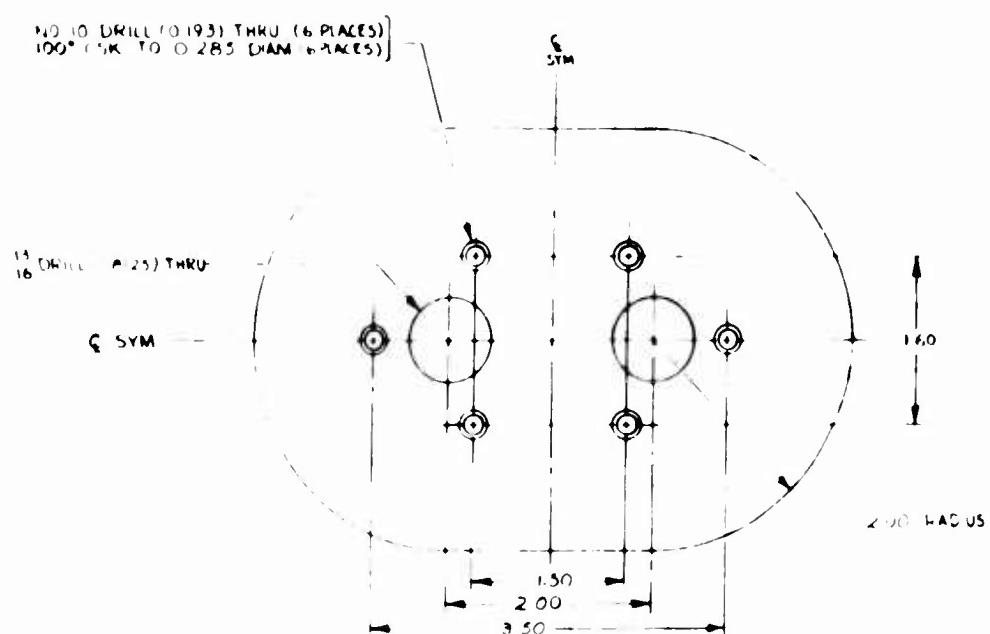
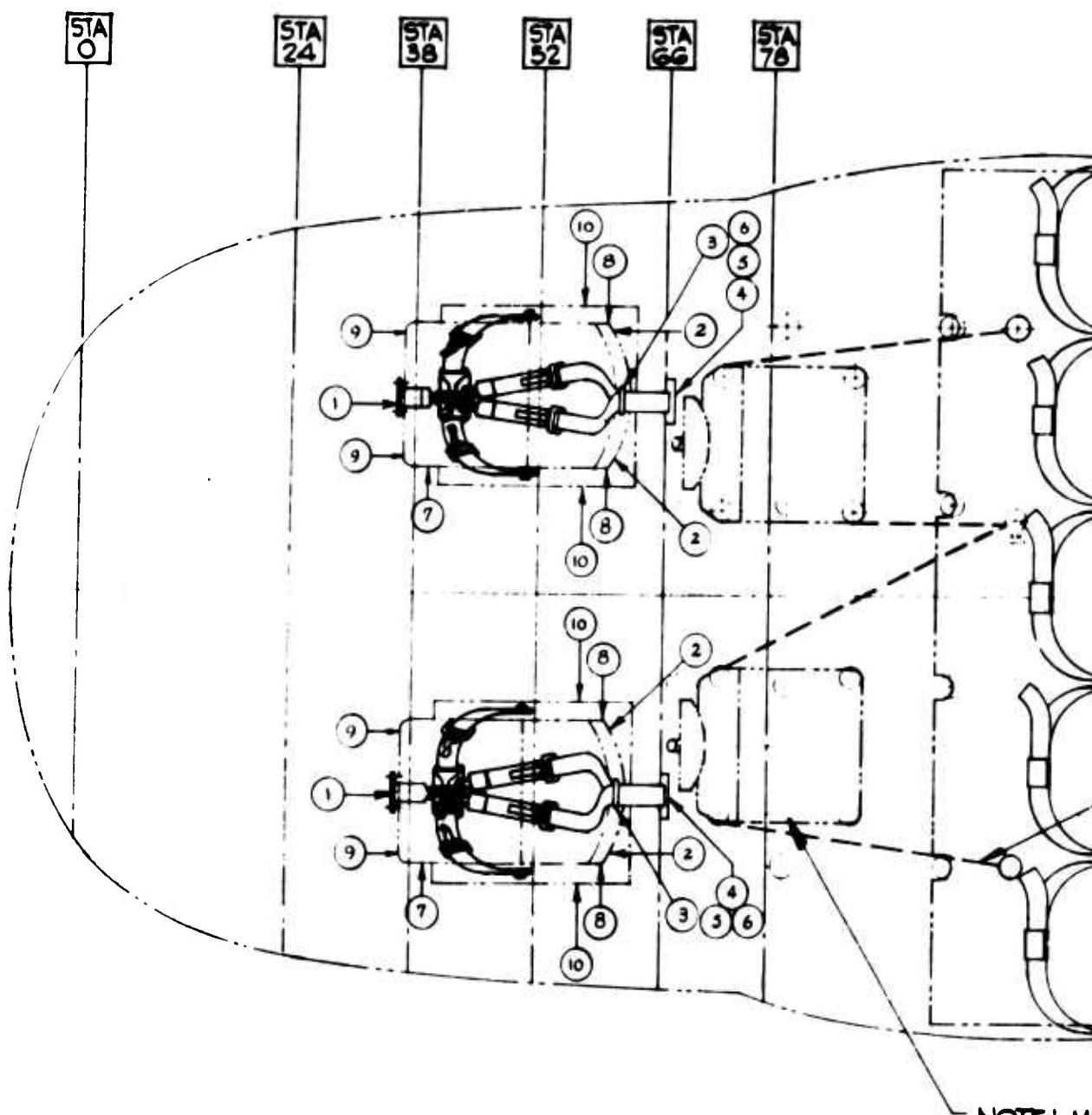


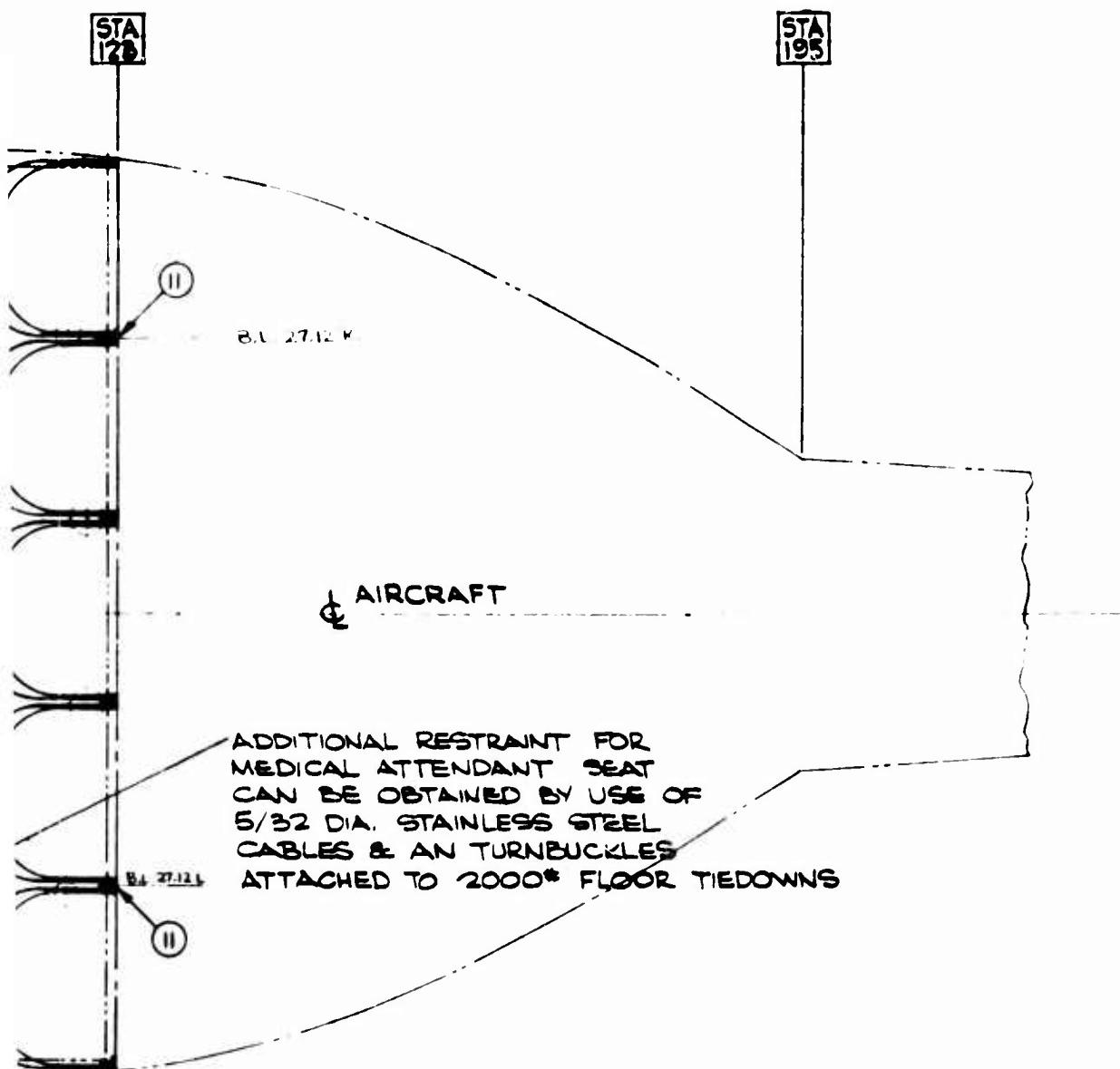
PLATE TO AFT BULKHEAD SKIN
R TO -1 PLATE ON ASSEMBLY
VE, OR EQUIVALENT

ACES BL 20.00 RM & LH
1. & LH (WL 3093)
ACES, BL 2712 RM & LH

FRAMES

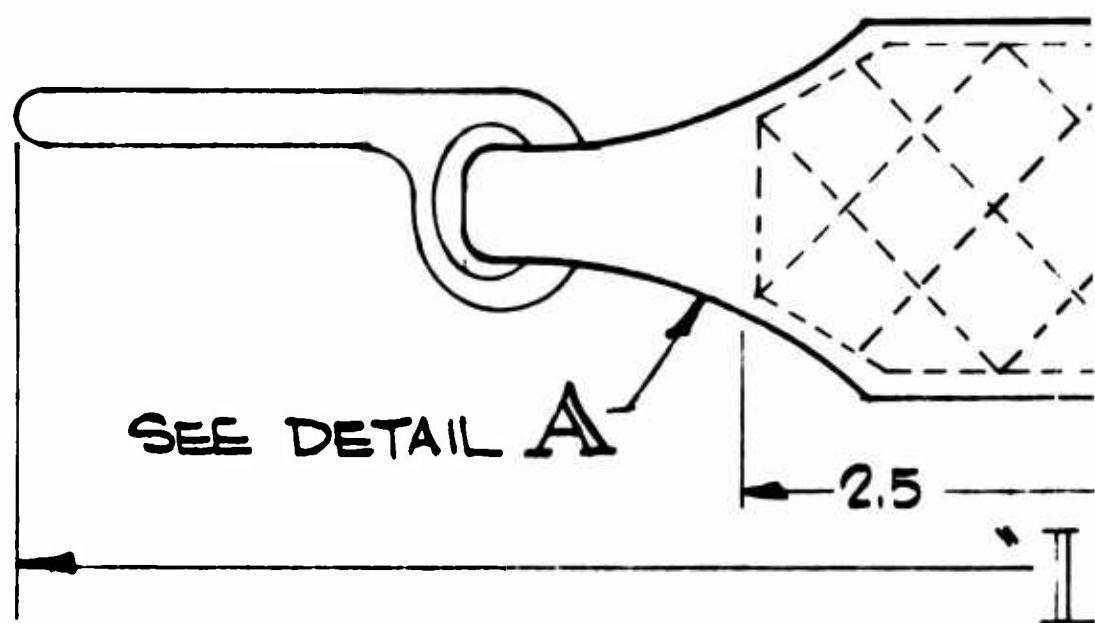


NOTE: M
USED

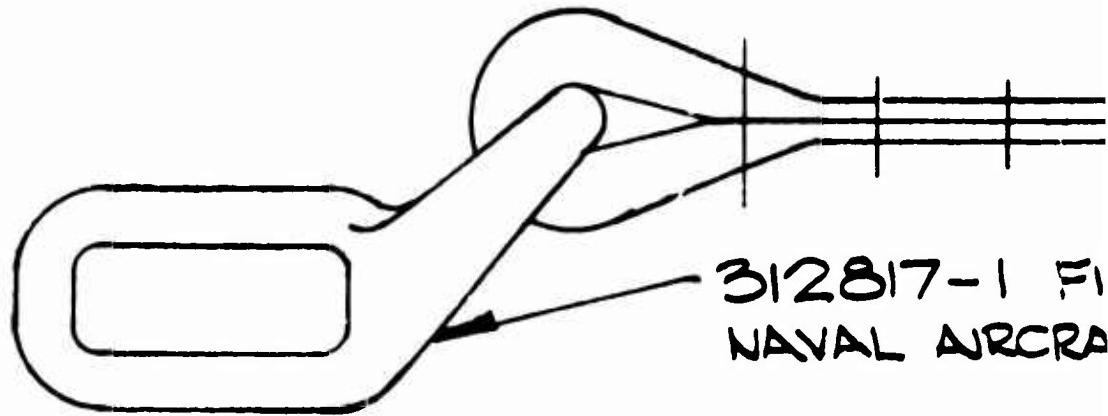


MEDICAL ATTENDANT SEATS
ONLY WITH LITTERS

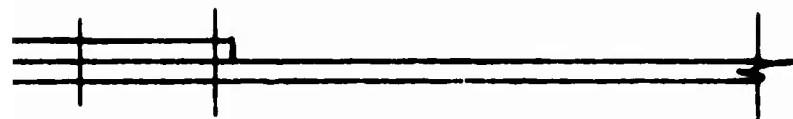
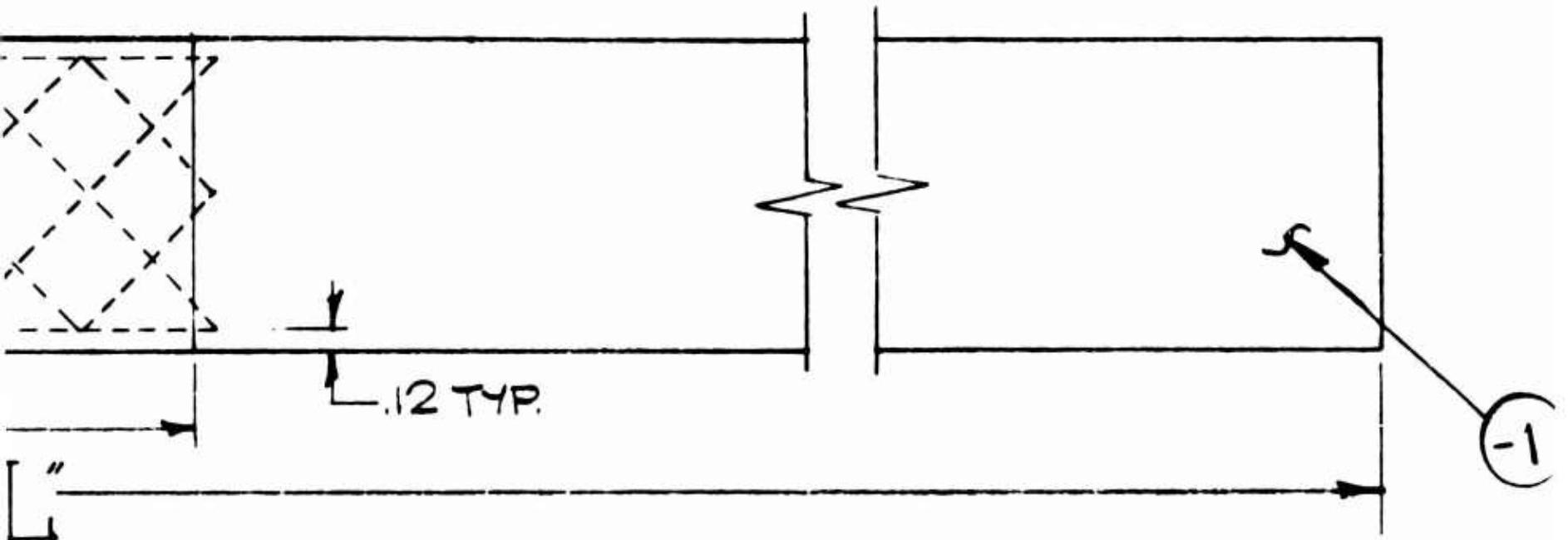
A
FRAMES



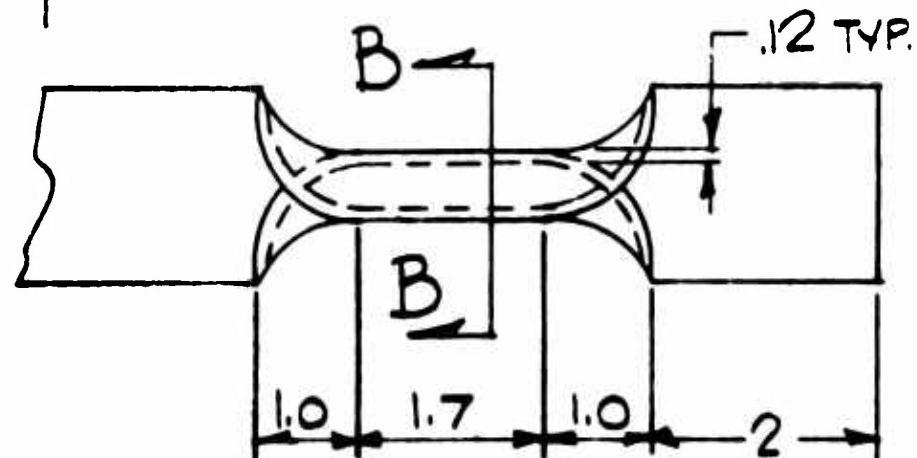
A



5. DACRON WEBBING TYPE II PER SPEC.
.065 - .085 THICK X 1.72 WIDE MAX.
WT. 2.10 OZ. / YD. MAX.
 4. STITCHING SHALL BE WITH NYLON CORE
NO. 3 SIZE TYPE I OR II, CLASS I, AND
NOT LESS THAN 6 NOR MORE THAN 8
IN ACCORDANCE WITH SPEC. DDD-S-7
 3. ENDS OF STITCHING SHALL BE BACK STITCHED
 2. SEAR ENDS OF ALL WEBBING TO PREVENT SLIP
 1. STITCHING INDICATED BY DOTTED LINE
- NOTES:



FITTING
AFT FACTORY



MIL-W-25361

DETAIL A

HALF SIZE

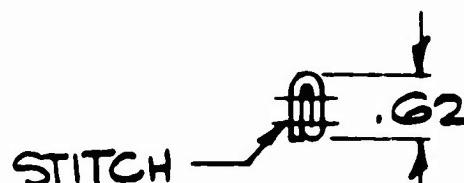
D. MIL-T-7807B

ID SHALL CONTAIN
3 STITCHES PER INCH
751 TYPE 301

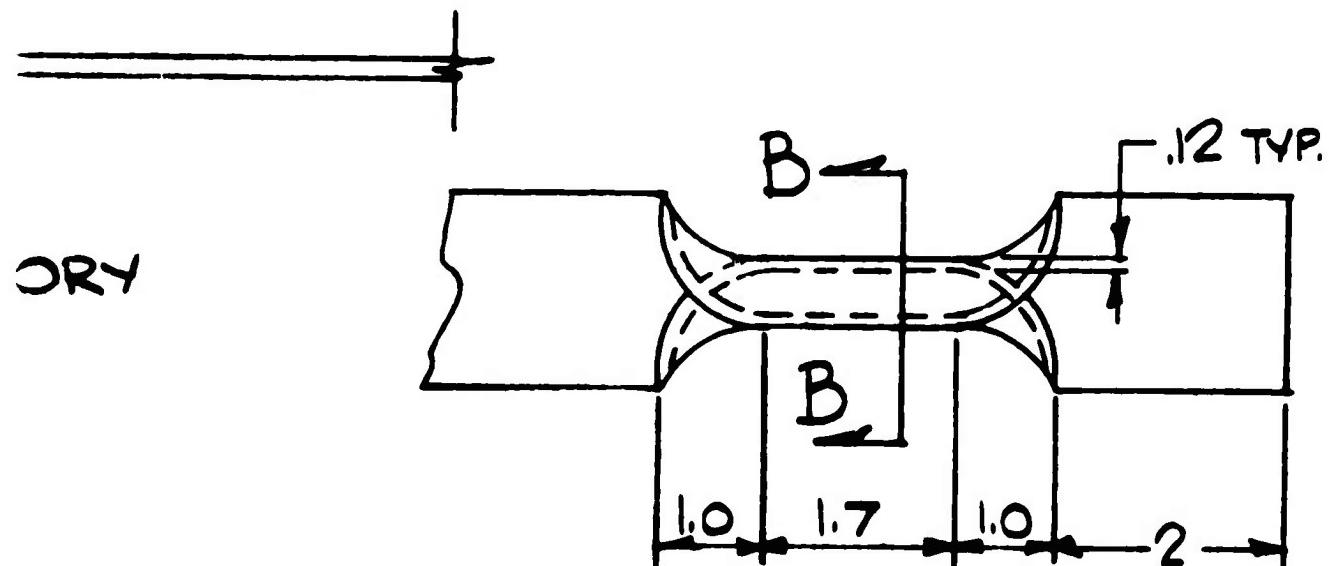
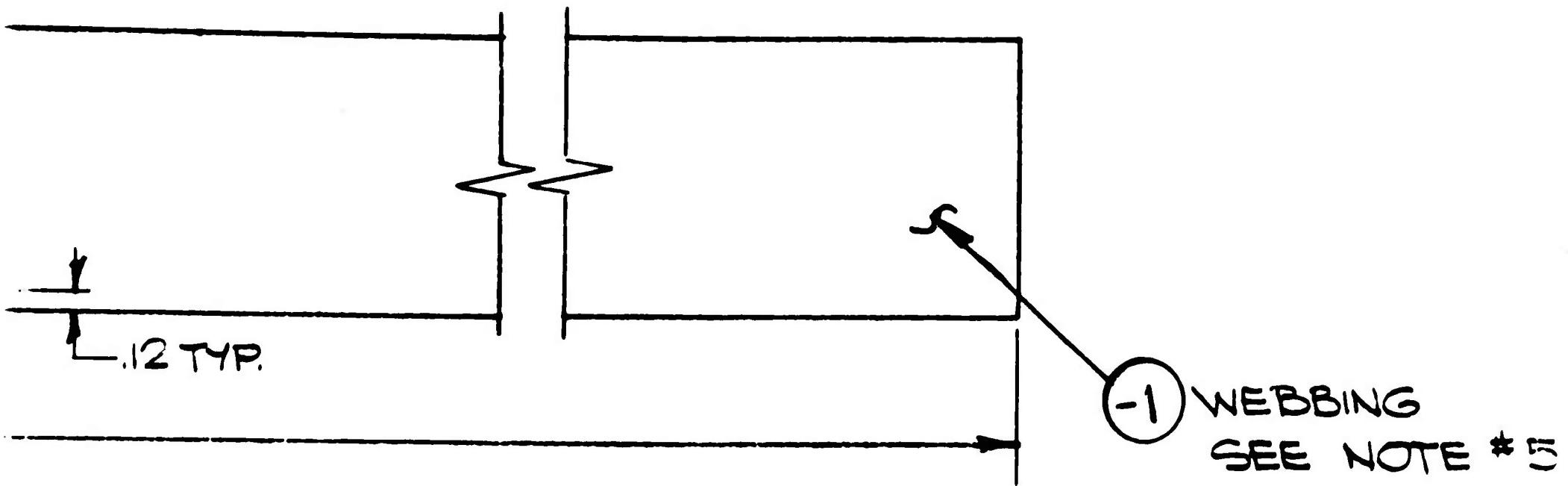
ITCHED 0.5 IN. MIN.

END FRAYING

IES -----



SECTION B



.5361

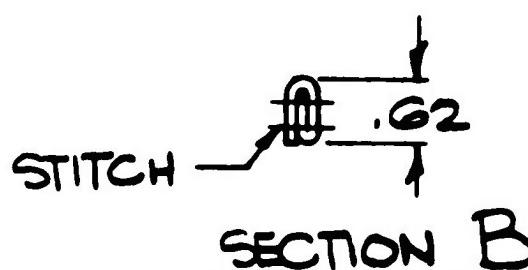
DETAIL A

HALF SIZE

1807B
CONTAIN
3 PER INCH
301

> IN. MIN.

JG



SECTION B

LENGTH OF STRAP

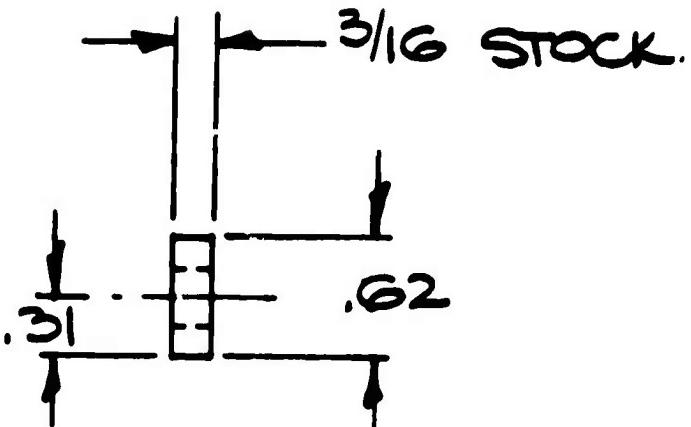
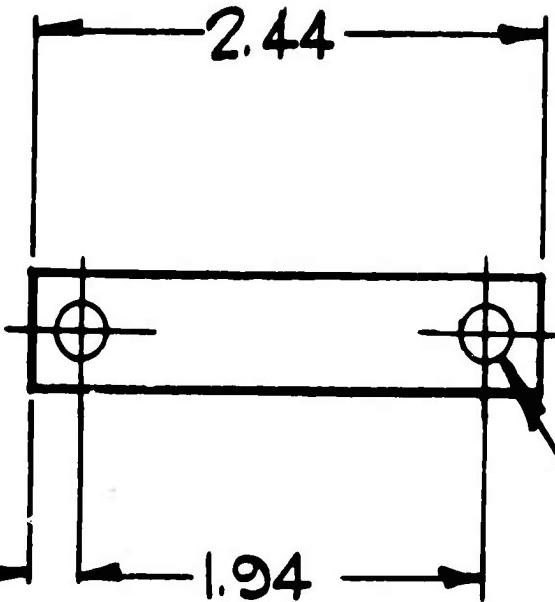
AIRCRAFT	"L" DIM.	NEXT ASSEMBLY.
HC-1	18.1	HC-1-14
HU-1	16.5	HU-1-11
AC-1	20.8	AC-1-10

FR ;

.25

B

J. BRE
NOTE:-



BREAK SHARP EDGES .02 R.